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Analyses of Natural Gases, 1985

By B. J. Moore and Stella Sigler

UNITED STATES DEPARTMENT OF THE INTERIOR

Information Circular 9096

Analyses of Natural Gases, 1985

B. J. Moore and Stella Sigler

UNITED STATES DEPARTMENT OF THE INTERIOR
Donald Paul Hodel, Secretary

BUREAU OF MINES
Robert C. Horton, Director

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ANALYSES OF NATURAL GASES, 1985

By B. J. Moore[1] and Stella Sigler[2]

ABSTRACT

This publication contains analyses and related source data for 517 natural gas samples from 25 States and 1 foreign country. Of the total samples, 298 were collected during calendar year 1985; the remainder were collected earlier, but releases granting permission to publish were not received before 1985. All samples were obtained and analyzed as part of Bureau of Mines investigations of the occurrences of helium in natural gases of countries with free market economies. This survey has been conducted since 1917. The analyses published herein were made by mass spectrometer and chromatograph.

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INTRODUCTION

This Bureau of Mines publication contains analyses and related source data for 517 natural gas samples from 25 States and 1 foreign country. Of these samples, 298 were collected during calendar year 1985, 219 samples were collected earlier, but releases granting permission to publish were not received before 1985. All samples were obtained and analyzed as part of Bureau of Mines investigations of the occurrences of helium in natural gases of countries with free market economies. This survey has been conducted since 1917. The analyses published herein were made by mass spectrometer and chromatograph.

The results of these investigations are published annually to make the information available to the petroleum industry and the general public. Twenty-nine publications have presented the results of 14,233 gas analyses made prior to 1985. The first three bulletins (1-3)[3] contain analyses and related source data on 5,218 gas samples collected from 1917 through 1960; these bulletins have been supplemented annually by information circulars (4-17, 19-24, 26-29) containing 8,729 analyses of samples collected since 1960.

In 1976, a compilation of the analyses made prior to 1975 was prepared by the Bureau of Mines and published by the National Technical Information Service of the U.S. Department of Commerce (18). This compilation contains 10,562 analyses of gas samples from gas and oil wells and natural gas pipelines in 37 States and 23 foreign countries. In 1982, a compilation of analyses made prior to 1980 was published (25). The 1982 publication contains 12,554 analyses of gas samples from gas and oil wells and natural gas pipelines in 39 States and 24 foreign countries and includes the analyses from the 1976 publication.

In addition to being in the publications, all analyses and related information published through 1984 are available on a magnetic tape file. The tape is available for $160 from the National Technical Information Service, Springfield, VA 22151; orders should refer to Bureau of Mines tape PB 85-200350.

ACKNOWLEDGMENTS

The helium survey program is conducted by soliciting natural gas samples throughout the United States and other countries with free market economies. Without the assistance of the petroleum industry, State and Federal agencies, and many individuals engaged in oil and gas exploration and production, the helium survey in its present scope would not be possible. The analyses listed in the tables were made by the Section of Technical and Analytical Services, Helium Field Operations, Bureau of Mines, Amarillo, TX. The list of analyses was produced through use of a computer by the Section of Automatic Data Processing, Helium Field Operations, Bureau of Mines, Amarillo, TX.

GEOLOGIC PROVINCES OF THE UNITED STATES

The tables include geologic province codes so each sample source can be located within a specific geologic province as defined by the Committee on Statistics of Drilling of the American Association of Petroleum Geologists.[4] These provinces, which are given in the following list and shown in figure 1, are delineated by political boundaries for convenience and for accommodation of data processing equipment. Not all of the provinces shown are gas-producing areas, so many of the codes are not used in this publication. Since State or Federal ownership is not always known in offshore areas, only one code is used for each State. Owing to the lack of information on the location of wells in Alaska, only one code, 972, is used for all wells.

The following list and figure 1 are taken from the article cited in footnote 4.

[3]Underlined numbers in parentheses refer to items in the list of previous publications at the end of this report.

[4]Meyer, R. F. Geologic Provinces Code Map for Computer Use. AAPG Bull., v. 54, No. 7, July 1970, pp. 1301-1305.

FIGURE 1. - Geologic provinces of the United States.

Code	Province
100	New England Province
110	Adirondack Uplift
120	Atlantic Coast Basin
130	South Georgia-North Florida Sedimentary Province
140	South Florida Province
150	Piedmont-Blue Ridge Province
160	Appalachian Basin
200	Warrior Basin
210	Mid-Gulf Coast Basin
220	Gulf Coast Basin
230	Arkla Basin
240	Desha Basin
250	Upper Mississippi Embayment
260	East Texas Basin
300	Cincinnatti Arch
305	Michigan Basin
310	Wisconsin Arch
315	Illinois Basin
320	Sioux Uplift
325	Iowa Shelf
330	Lincoln Anticline
335	Forest City Basin
340	Ozark Uplift
345	Arkoma Basin
350	South Oklahoma Folded Belt Province
355	Chautauqua Platform
360	Anadarko Basin
365	Cherokee Basin
370	Nemaha Anticline
375	Sedgwick Basin
380	Salina Basin
385	Central Kansas Uplift
390	Chadron Arch
395	Williston Basin
400	Ouachita Tectonic Belt Province
405	Kerr Basin
410	Llano Uplift
415	Strawn Basin
420	Fort Worth Syncline
425	Bend Arch
430	Permian Basin
435	Palo Duro Basin
440	Amarillo Arch
445	Sierra Grande Uplift
450	Las Animas Arch
455	Las Vegas-Raton Basin
460	Estancia Basin
465	Orogrande Basin
470	Pedregosa Basin
475	Basin- and Range Province

Code	Province
500	Sweetgrass Arch
505	Montana Folded Belt Province
510	Central Montana Uplift
515	Powder River Basin
520	Big Horn Basin
525	Yellowstone Province
530	Wind River Basin
535	Green River Basin
540	Denver Basin
545	North Park Basin
550	South Park Basin
555	Eagle Basin
560	San Luis Basin
565	San Juan Mountain Province
570	Uinta Uplift
575	Uinta Basin
580	San Juan Basin
585	Paradox Basin
590	Black Mesa Basin
595	Piceance Basin
600	Northern Cascade Range--Okanagan Province
605	Eastern Columbia Basin
610	Idaho Mountains Province
615	Snake River Basin
620	Southern Oregon Basin
625	Great Basin Province
630	Wasatch Uplift
635	Plateau Sedimentary Province
640	Mojave Basin
645	Salton Basin
650	Sierra Nevada Province
700	Bellingham Basin
705	Puget Sound Province
710	Western Columbia Basin
715	Klamath Mountains Province
720	Eel River Basin
725	Northern Coast Range Province
730	Sacramento Basin
735	Santa Cruz Basin
740	Coastal Basins
745	San Joaquin Basin
750	Santa Maria Basin
755	Ventura Basin
760	Los Angeles Basin
765	Capistrano Basin

Code	Province
800	Heceta Island Area
805	Keku Islands Area
810	Gulf of Alaska Basin
815	Copper River Basin
820	Cook Inlet Basin
830	Kandik Province
835	Kobuk Province
840	Koyukuk Province
845	Bristol Bay Basin
850	Bethel Basin
855	Norton Basin
860	Selawik Basin
863	Yukon Flats Basin
865	Lower Tanana Basin
867	Middle Tanana Basin
870	Upper Tanana Basin
873	Galena Basin
875	Innoko Basin
877	Minchumina Basin
880	Holitna Basin
885	Arctic Foothills Province
890	Arctic Slope Basin
900	Maine Atlantic offshore--general
901	Maine Atlantic offshore--State
902	Maine Atlantic offshore--Federal
903	New Hampshire Atlantic offshore--general
904	New Hampshire Atlantic offshore--State
905	New Hampshire Atlantic offshore--Federal
906	Massachusetts Atlantic offshore--general
907	Massachusetts Atlantic offshore--State
908	Massachusetts Atlantic offshore--Federal
909	Rhode Island Atlantic offshore--general
910	Rhode Island Atlantic offshore--State
911	Rhode Island Atlantic offshore--Federal
912	Connecticut Atlantic offshore--general
913	Connecticut Atlantic offshore--State
914	Connecticut Atlantic offshore--Federal
915	New York Atlantic offshore--general
916	New York Atlantic offshore--State
917	New York Atlantic offshore--Federal
918	New Jersey Atlantic offshore--general
919	New Jersey Atlantic offshore--State
920	New Jersey Atlantic offshore--Federal
921	Delaware Atlantic offshore--general
922	Delaware Atlantic offshore--State
923	Delaware Atlantic offshore--Federal
924	Maryland Atlantic offshore--general
925	Maryland Atlantic offshore--State
926	Maryland Atlantic offshore--Federal
927	Virginia Atlantic offshore--general
928	Virginia Atlantic offshore--State
929	Virginia Atlantic offshore--Federal

Code	Province
930	North Carolina Atlantic offshore--general
931	North Carolina Atlantic offshore--State
932	North Carolina Atlantic offshore--Federal
933	South Carolina Atlantic offshore--general
934	South Carolina Atlantic offshore--State
935	South Carolina Atlantic offshore--Federal
936	Georgia Atlantic offshore--general
937	Georgia Atlantic offshore--State
938	Georgia Atlantic offshore--Federal
939	Florida Atlantic offshore--general
940	Florida Atlantic offshore--State
941	Florida Atlantic offshore--Federal
942	Florida Gulf of Mexico offshore--general
943	Florida Gulf of Mexico offshore--State
944	Florida Gulf of Mexico offshore--Federal
945	Alabama Gulf of Mexico offshore--general
946	Alabama Gulf of Mexico offshore--State
947	Alabama Gulf of Mexico offshore--Federal
948	Mississippi Gulf of Mexico offshore--general
949	Mississippi Gulf of Mexico offshore--State
950	Mississippi Gulf of Mexico offshore--Federal
951	Louisiana Gulf of Mexico offshore--general
952	Louisiana Gulf of Mexico offshore--State
953	Louisiana Gulf of Mexico offshore--Federal
954	Texas Gulf of Mexico offshore--general
955	Texas Gulf of Mexico offshore--State
956	Texas Gulf of Mexico offshore--Federal
957	California Pacific offshore--general
958	California Pacific offshore--State
959	California Pacific offshore--Federal
960	Oregon Pacific offshore--general
961	Oregon Pacific offshore--State
962	Oregon Pacific offshore--Federal
963	Washington Pacific offshore--general
964	Washington Pacific offshore--State
965	Washington Pacific offshore--Federal
972	Alaska Arctic offshore--general
973	Alaska Arctic offshore--State
974	Alaska Arctic offshore--Federal
975	Alaska Bering Sea offshore--general
976	Alaska Bering Sea offshore--State
977	Alaska Bering Sea offshore--Federal
978	Alaska Pacific offshore--general
979	Alaska Pacific offshore--State
980	Alaska Pacific offshore--Federal
987	Minnesota Lake Superior offshore
988	Wisconsin Lake Superior offshore
989	Michigan Lake Superior offshore
990	Indiana Lake Michigan offshore
991	Illinois Lake Michigan offshore
992	Wisconsin Lake Michigan offshore
993	Michigan Lake Michigan offshore
994	Michigan Lake Huron offshore

Code	Province
995	Michigan Lake Erie offshore
996	Ohio Lake Erie offshore
997	Pennsylvania Lake Erie offshore
998	New York Lake Erie offshore
999	New York Lake Ontario offshore

TABLES

The following tables include the results of analyses and related source data from gas samples, which are divided into three groups as follows:

Table 1. - Samples from gas and oil wells in the United States.

Table 2. - Samples from pipelines in the United States.

Table 3. - Samples from gas and oil wells in foreign countries.

The following list indicates the sources of the samples listed in the tables:

Source	Number of samples	Tables	Source	Number of samples	Tables
Alabama	15	1	New Mexico	29	1, 2
Alaska	1	1	New York	8	1
Arkansas	36	1	North Dakota	7	1
California	12	1, 2	Ohio	3	1
Colorado	48	1, 2	Oklahoma	103	1
Illinois	2	1	Pennsylvania	7	1, 2
Indiana	4	1	Tennessee	5	1
Kansas	22	1	Texas	81	1
Kentucky	2	1	Utah	12	1, 2
Louisiana	38	1	West Virginia	9	1
Michigan	3	1	Wyoming	48	1, 2
Mississippi	14	1			
Montana	4	1	Thailand	1	3
Nebraska	3	1, 2			

All components of the analyses in the tables are reported to the nearest 0.1 pct, except helium, which is reported to the nearest 0.01 pct. The word "trace" is used to denote quantities of helium of less than 0.005 pct and quantities of other components of less than 0.05 pct.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 1 SAMPLE 17806	INDEX 2 SAMPLE 17217	INDEX 3 SAMPLE 17605
STATE	ALABAMA	ALABAMA	ALABAMA
COUNTY	FAYETTE	FAYETTE	FAYETTE
FIELD	BETHEL CHURCH	BLUFF	HAPPY HILL
WELL NAME	KIRKLAND 36-3 NO. 1	TAYLOR NO. 10-1	CANNON NO. 26-14
LOCATION	SEC. 36, T14S, R13W	SEC. 10, T14S, R13W	SEC. 26, T13S, R12W
OWNER	MWJ PRODUCING CO.	CHARLES L. CHERRY & ASSOC.	CARLESS RESOURCES, INC.
COMPLETED	01/09/85	--/--/00	07/20/84
SAMPLED	08/--/85	03/15/84	02/27/85
FORMATION	MISS-MILLERELLA	MISS-GILMER	MISS-CARTER
GEOLOGIC PROVINCE CODE	200	200	200
DEPTH, FEET	2253	2018	1997
WELLHEAD PRESSURE,PSIG	800	1000	835
OPEN FLOW, MCFD	1178	NOT GIVEN	900
COMPONENT, MOLE PCT			
METHANE	94.4	96.0	89.9
ETHANE	1.3	1.1	0.4
PROPANE	0.1	0.1	0.2
N-BUTANE	0.1	0.1	0.0
ISOBUTANE	0.0	0.0	0.0
N-PENTANE	0.1	TRACE	0.0
ISOPENTANE	0.0	TRACE	0.0
CYCLOPENTANE	0.1	TRACE	0.0
HEXANES PLUS	0.2	TRACE	0.0
NITROGEN	3.0	2.5	9.0
OXYGEN	0.5	TRACE	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	TRACE	0.0	0.2
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.1	0.1
HELIUM	0.08	0.07	0.05
HEATING VALUE*	1004	998	924
SPECIFIC GRAVITY	0.588	0.573	0.595

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 4 SAMPLE 17708	INDEX 5 SAMPLE 16920	INDEX 6 SAMPLE 16921
STATE	ALABAMA	ALABAMA	ALABAMA
COUNTY	JEFFERSON	LAMAR	LAMAR
FIELD	OAK GROVE	ARMSTRONG BRANCH	BLOWHORN CREEK N
WELL NAME	NO. 29-4-3	ANDERSON NO. 28-8	JOHNSON USA NO. 1
LOCATION	NOT GIVEN	SEC. 28, T13S, R14W	NOT GIVEN
OWNER	UNITED STATES STEEL CORP.	HUGHES & HUGHES OIL & GAS EX	HUGHES & HUGHES OIL & GAS EX
COMPLETED	10/--/82	05/04/83	--/--/83
SAMPLED	06/13/85	05/04/83	05/04/83
FORMATION	PENN-POTTSVILLE	MISS-CARTER	NOT GIVEN
GEOLOGIC PROVINCE CODE	160	200	200
DEPTH, FEET	1100	2226	NOT GIVEN
WELLHEAD PRESSURE,PSIG	200	550	NOT GIVEN
OPEN FLOW, MCFD	110	1550	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE	97.8	89.9	90.8
ETHANE	0.0	4.1	4.6
PROPANE	0.0	1.9	1.9
N-BUTANE	0.0	0.8	0.9
ISOBUTANE	0.0	0.3	0.3
N-PENTANE	0.0	0.2	0.1
ISOPENTANE	0.0	0.4	0.4
CYCLOPENTANE	0.0	0.1	0.1
HEXANES PLUS	0.0	0.2	0.2
NITROGEN	0.6	1.0	0.4
OXYGEN	0.0	0.1	0.0
ARGON	1.6	TRACE	TRACE
HYDROGEN	TRACE	0.3	0.2
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.5	0.1
HELIUM	TRACE	0.05	0.01
HEATING VALUE*	991	1111	1128
SPECIFIC GRAVITY	0.572	0.636	0.633

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 7 SAMPLE 17748	INDEX 8 SAMPLE 17221	INDEX 9 SAMPLE 17827
STATE	ALABAMA	ALABAMA	ALABAMA
COUNTY	LAMAR	LAMAR	LAMAR
FIELD	MCGEE LAKE	MILLPORT	MOUNT ZION
WELL NAME	CLARENCE DAY NO. 1-1	C. C. CUNNINGHAM 7-11 NO. 1	SPANN 10-13 NO. 1
LOCATION	SEC. 1, T17S, R16W	NOT GIVEN	SEC. 10, T16S, R15W
OWNER	TUCKER OPERATING CO., INC.	DOUGLAS EXPLORATION CO., INC	ANDERMAN SMITH OPERATING CO.
COMPLETED	03/29/85	12/14/82	01/26/85
SAMPLED	06/27/85	03/23/84	08/--/85
FORMATION	MISS-MILLERELLA	MISS-LEWIS	MISS-LEWIS
GEOLOGIC PROVINCE CODE	200	200	200
DEPTH, FEET	4140	4602	4614
WELLHEAD PRESSURE,PSIG	1550	950	1660
OPEN FLOW, MCFD	1588	NOT GIVEN	1575
COMPONENT, MOLE PCT			
METHANE	88.3	91.0	86.5
ETHANE	4.8	5.3	6.1
PROPANE	2.2	1.1	2.4
N-BUTANE	0.9	0.3	0.9
ISOBUTANE	0.4	0.2	0.3
N-PENTANE	0.4	0.1	0.3
ISOPENTANE	0.3	0.1	0.3
CYCLOPENTANE	0.3	0.1	0.2
HEXANES PLUS	0.5	0.1	0.4
NITROGEN	1.4	1.6	2.2
OXYGEN	TRACE	TRACE	0.2
ARGON	0.0	TRACE	TRACE
HYDROGEN	0.1	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.4	TRACE	0.1
HELIUM	0.11	0.08	0.10
HEATING VALUE*	1149	1080	1142
SPECIFIC GRAVITY	0.661	0.614	0.663

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 10 SAMPLE 17842	INDEX 11 SAMPLE 17921	INDEX 12 SAMPLE 17216
STATE	ALABAMA	ALABAMA	ALABAMA
COUNTY	LAMAR	LAMAR	LAMAR
FIELD	MOUNT ZION	NOT GIVEN	WATSON CREEK
WELL NAME	A.O. PROBST NO. 9-14	MARX-THOMAS NO. 6-6	TODD 35-12 NO. 1
LOCATION	SEC. 9, T16S, R15W	SEC. 6, T17S, R15W	SEC. 35, T14S, R15W
OWNER	PRUET PRODUCTION CO.	TUCKER OPERATING CO., INC.	CHARLES L. CHERRY & ASSOC.
COMPLETED	11/03/83	06/29/85	11/04/83
SAMPLED	09/24/85	11/30/85	03/16/84
FORMATION	CRET-CHANDLER	MISS-MILLERELLA	MISS-CARTER
GEOLOGIC PROVINCE CODE	200	200	200
DEPTH, FEET	3672	4274	2653
WELLHEAD PRESSURE, PSIG	1350	1550	2000
OPEN FLOW, MCFD	770	1532	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE	85.2	67.5	90.7
ETHANE	7.5	4.1	3.9
PROPANE	2.6	1.9	2.0
N-BUTANE	1.0	1.0	0.7
ISOBUTANE	0.4	0.1	0.3
N-PENTANE	0.4	1.5	0.2
ISOPENTANE	0.4	0.0	0.2
CYCLOPENTANE	0.1	1.0	0.1
HEXANES PLUS	0.4	1.8	0.2
NITROGEN	1.5	0.4	1.3
OXYGEN	TRACE	0.1	0.1
ARGON	TRACE	0.0	TRACE
HYDROGEN	TRACE	0.1	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.2	20.7	TRACE
HELIUM	0.09	0.08	0.07
HEATING VALUE*	1171	1038	1105
SPECIFIC GRAVITY	0.672	0.906	0.628

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 13 SAMPLE 17832	INDEX 14 SAMPLE 17614	INDEX 15 SAMPLE 17802
STATE	ALABAMA	ALABAMA	ALABAMA
COUNTY	PICKENS	TUSCALOOSA	TUSCALOOSA
FIELD	COAL FIRE CREEK	DEERLICK CREEK-COAL	DUNN CREEK
WELL NAME	SHELTON NO. 17-6	DEERLICK CREEK COMP. STA.	JAMES GRAHAM BROWN NO.1
LOCATION	SEC. 17, T18S, R14W	INLET FROM ALL WELLS	SEC. 6, T19S, R12W
OWNER	SOUTHLAND ROYALTY CO.	TRW, INC.	HUNT OIL CO
COMPLETED	08/15/84	--/--/00	02/11/85
SAMPLED	09/12/85	03/07/85	--/--/00
FORMATION	MISS-CARTER	PENN-POTTSVILLE	MISS-LEWIS
GEOLOGIC PROVINCE CODE	200	200	200
DEPTH, FEET	4670	NOT GIVEN	4967
WELLHEAD PRESSURE,PSIG	1350	650	1643
OPEN FLOW, MCFD	3114	170000	2500
COMPONENT, MOLE PCT			
METHANE	89.2	98.7	88.6
ETHANE	7.5	0.1	8.3
PROPANE	0.5	TRACE	0.3
N-BUTANE	0.1	0.0	0.1
ISOBUTANE	0.4	0.0	0.2
N-PENTANE	0.1	0.0	0.1
ISOPENTANE	0.2	0.0	0.2
CYCLOPENTANE	0.2	0.0	0.1
HEXANES PLUS	0.3	0.0	0.2
NITROGEN	1.0	1.0	1.3
OXYGEN	0.1	0.0	TRACE
ARGON	TRACE	0.0	TRACE
HYDROGEN	TRACE	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.5	0.2	0.3
HELIUM	0.06	0.04	0.10
HEATING VALUE*	1103	1002	1091
SPECIFIC GRAVITY	0.631	0.561	0.622

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 16 SAMPLE 16250	INDEX 17 SAMPLE 17933	INDEX 18 SAMPLE 17547
STATE	ALASKA	ARKANSAS	ARKANSAS
COUNTY	N SLOPE-NPR4	FRANKLIN	FRANKLIN
FIELD	WALAKPA	CECIL	LONE ELM
WELL NAME	WALAKPA NO. 2	JOHNSON NO. 2-T	KIRBY NO. 1-8
LOCATION	SEC. 31, T20N, R19WUM	SEC. 20, T9N, R28 W	SEC. 8, T10N, R21W
OWNER	U.S. GEOLOGICAL SURVEY	ARKOMA PRODUCTION CO.	TENNECO OIL CO.
COMPLETED	--/--/00	03/12/85	02/19/84
SAMPLED	02/11/81	12/17/85	12/14/84
FORMATION	CRET-NOT GIVEN	PENN-SPIRO	PENN-FRIEBERG
GEOLOGIC PROVINCE CODE	972	345	345
DEPTH, FEET	2606	3622	2042
WELLHEAD PRESSURE,PSIG	NOT GIVEN	3600	350
OPEN FLOW, MCFD	NOT GIVEN	1010	2712
COMPONENT, MOLE PCT			
METHANE	97.0	96.8	98.0
ETHANE	2.0	1.4	0.9
PROPANE	0.5	0.2	0.1
N-BUTANE	0.2	0.0	0.0
ISOBUTANE	TRACE	0.0	0.0
N-PENTANE	TRACE	0.0	0.0
ISOPENTANE	TRACE	0.0	0.0
CYCLOPENTANE	TRACE	0.0	0.0
HEXANES PLUS	TRACE	0.0	0.0
NITROGEN	0.2	1.0	0.7
OXYGEN	TRACE	0.0	0.0
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	0.1	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.4	0.1
HELIUM	0.02	0.07	0.10
HEATING VALUE*	1038	1011	1012
SPECIFIC GRAVITY	0.574	0.570	0.563

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 19 SAMPLE 17548	INDEX 20 SAMPLE 17629	INDEX 21 SAMPLE 17635
STATE	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY	FRANKLIN	FRANKLIN	FRANKLIN
FIELD	LONE ELM	LONE ELM	WATALULA
WELL NAME	KIRBY NO. 1-8	MCCLURKIN NO. 2	HUDSON NO. 1-6
LOCATION	SEC. 8, T10N, R21W	SEC. 17, T10N, R28W	SEC. 6, T10N, R27W
OWNER	TENNECO OIL CO.	SEECO, INC.	SEECO, INC.
COMPLETED	02/09/84	05/02/84	01/13/84
SAMPLED	12/14/84	03/22/85	03/22/85
FORMATION	PENN-CECIL SPIRO	ORDO-JENKINS	PENN-CASEY
GEOLOGIC PROVINCE CODE	345	345	345
DEPTH, FEET	2653	2700	3068
WELLHEAD PRESSURE,PSIG	850	977	740
OPEN FLOW, MCFD	1150	3171	240
COMPONENT, MOLE PCT			
METHANE	97.8	98.2	97.9
ETHANE	0.9	0.8	1.1
PROPANE	0.1	0.1	0.1
N-BUTANE	0.0	0.0	0.0
ISOBUTANE	0.0	0.0	0.0
N-PENTANE	0.0	0.0	0.0
ISOPENTANE	0.0	0.0	0.0
CYCLOPENTANE	0.0	0.0	0.0
HEXANES PLUS	0.0	0.0	0.0
NITROGEN	0.9	0.7	0.7
OXYGEN	0.0	0.1	0.1
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.1	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.1	0.1
HELIUM	0.10	0.10	0.09
HEATING VALUE*	1010	1012	1014
SPECIFIC GRAVITY	0.564	0.564	0.565

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 22 SAMPLE 17637	INDEX 23 SAMPLE 17829	INDEX 24 SAMPLE 17859
STATE	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY	FRANKLIN	FRANKLIN	JOHNSON
FIELD	WATALULA	WHITE OAK	HUNT
WELL NAME	HUDSON NO. 1-6	HUGGINS NO. 2-T	PEABODY COAL NO. 1
LOCATION	SEC. 6, T10N, R27W	SEC. 15, T10N, R27W	SEC. 12, T10N, R25W
OWNER	SEECO, INC.	SEECO, INC.	TXO PRODUCTION CORP.
COMPLETED	01/13/84	05/02/85	11/11/84
SAMPLED	03/22/85	09/12/85	10/03/85
FORMATION	PENN-BARTON,PAUL	PENN-HALE M	PENN-HALE L
GEOLOGIC PROVINCE CODE	345	345	345
DEPTH, FEET	3614	3978	4200
WELLHEAD PRESSURE,PSIG	1095	1660	NOT GIVEN
OPEN FLOW, MCFD	340	11908	2631
COMPONENT, MOLE PCT			
METHANE	97.8	97.8	97.5
ETHANE	1.4	1.2	1.0
PROPANE	0.1	0.1	0.1
N-BUTANE	0.0	0.0	0.0
ISOBUTANE	0.0	0.0	0.0
N-PENTANE	0.0	0.0	0.0
ISOPENTANE	0.0	0.0	0.0
CYCLOPENTANE	0.0	0.0	0.0
HEXANES PLUS	0.0	0.0	0.0
NITROGEN	0.4	0.4	0.8
OXYGEN	0.1	TRACE	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	TRACE	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.3	0.5
HELIUM	0.08	0.05	0.10
HEATING VALUE*	1018	1015	1008
SPECIFIC GRAVITY	0.565	0.565	0.568

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 25 SAMPLE 17803	INDEX 26 SAMPLE 17223	INDEX 27 SAMPLE 17684
STATE	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY	JOHNSON	JOHNSON	JOHNSON
FIELD	LUDWIG	ROSS	SILEX
WELL NAME	WEBB "C" NO.1	CASTLEBERRY NO. 1-7	ALDERSON A NO. 31-1
LOCATION	SEC. 25, T10N, R23W	SEC. 7, T9N, R22W	SEC. 31, T10N, R21W
OWNER	TXO PRODUCTION CORP.	SANTA FE ENERGY CO.	ALEXANDER ENERGY CORP.
COMPLETED	12/28/84	12/--/82	01/05/85
SAMPLED	08/11/85	03/27/84	--/--/00
FORMATION	PENN-DUNN & BARTON	PENN-MCGUIRE	PENN-HALE
GEOLOGIC PROVINCE CODE	345	345	345
DEPTH, FEET	3473	NOT GIVEN	5900
WELLHEAD PRESSURE,PSIG	NOT GIVEN	1190	NOT GIVEN
OPEN FLOW, MCFD	460	NOT GIVEN	5478
COMPONENT, MOLE PCT			
METHANE	97.1	97.8	97.7
ETHANE	1.0	1.3	1.3
PROPANE	0.1	0.1	0.2
N-BUTANE	0.0	0.0	0.0
ISOBUTANE	0.0	0.0	0.0
N-PENTANE	0.0	0.0	0.0
ISOPENTANE	0.0	0.0	0.0
CYCLOPENTANE	0.0	0.0	0.0
HEXANES PLUS	0.0	0.0	0.0
NITROGEN	1.0	0.4	0.5
OXYGEN	0.2	0.1	0.0
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.1	0.0	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.2	0.2	0.1
HELIUM	0.12	0.09	0.10
HEATING VALUE*	1004	1017	1019
SPECIFIC GRAVITY	0.565	0.566	0.565

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 28 SAMPLE 17556	INDEX 29 SAMPLE 17557	INDEX 30 SAMPLE 17539
STATE	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY	LAFAYETTE	LAFAYETTE	LOGAN
FIELD	KEOUN CREEK	KEOUN CREEK	CAULKSVILLE
WELL NAME	GLADYS BURTON MOORE NO. 1	C. W. MC DONALD NO. 1	BEASLEY CATTLE CO. NO. 1C
LOCATION	SEC. 33, T19S, R23W	SEC. 32, T19S, R23W	SEC. 30, T7N, R27W
OWNER	CUMMINS AND WALKER OIL CO.	CUMMINS AND WALKER OIL CO.	TXO PRODUCTION CORP.
COMPLETED	04/25/83	12/08/82	09/30/84
SAMPLED	01/07/85	01/07/85	12/10/84
FORMATION	JURA-SMACKOVER	JURA-SMACKOVER	PERM-ALMA UPPER
GEOLOGIC PROVINCE CODE	230	230	345
DEPTH, FEET	10906	10991	2930
WELLHEAD PRESSURE,PSIG	2565	2552	1320
OPEN FLOW, MCFD	2021	1072	2277
COMPONENT, MOLE PCT			
METHANE	86.2	84.9	96.8
ETHANE	4.7	4.8	1.3
PROPANE	2.2	2.4	0.1
N-BUTANE	1.0	1.2	0.0
ISOBUTANE	1.0	1.3	0.0
N-PENTANE	0.5	0.7	0.0
ISOPENTANE	0.2	0.1	0.0
CYCLOPENTANE	0.1	0.2	0.0
HEXANES PLUS	0.7	1.2	0.0
NITROGEN	1.5	1.3	1.3
OXYGEN	TRACE	TRACE	0.1
ARGON	0.0	0.0	TRACE
HYDROGEN	TRACE	TRACE	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	1.8	1.8	0.2
HELIUM	0.02	0.02	0.04
HEATING VALUE*	1151	1196	1006
SPECIFIC GRAVITY	0.686	0.711	0.569

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 31 SAMPLE 17816	INDEX 32 SAMPLE 17630	INDEX 33 SAMPLE 17792
STATE	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY	LOGAN	LOGAN	LOGAN
FIELD	CAULKSVILLE	NOT GIVEN	SCRANTON
WELL NAME	WATSON "E" NO. 1	ISAACS NO.1-4	THOMPSON L NO. 2
LOCATION	SEC. 20, T7N, R27W	SEC. 4, T6N, R26W	SEC. 12, T8N, R25W
OWNER	TXO PRODUCTION CORP.	SOUTHWESTERN ENERGY PROD. CO	TXO PRODUCTION CORP.
COMPLETED	05/02/85	10/21/83	05/20/85
SAMPLED	08/22/85	03/21/85	07/29/85
FORMATION	PENN-CARPENTER B	PENN-ATOKA	PENN-ARECI
GEOLOGIC PROVINCE CODE	345	345	345
DEPTH, FEET	4698	5876	4251
WELLHEAD PRESSURE,PSIG	750	1957	880
OPEN FLOW, MCFD	355	2200	2400
COMPONENT, MOLE PCT			
METHANE	97.0	59.5	97.7
ETHANE	2.0	0.8	1.0
PROPANE	0.3	0.1	0.1
N-BUTANE	0.0	0.0	0.0
ISOBUTANE	0.0	0.0	0.0
N-PENTANE	0.0	0.0	0.0
ISOPENTANE	0.0	0.0	0.0
CYCLOPENTANE	0.0	0.0	0.0
HEXANES PLUS	0.0	0.0	0.0
NITROGEN	0.3	38.8	0.4
OXYGEN	0.0	0.1	0.0
ARGON	TRACE	TRACE	TRACE
HYDROGEN	TRACE	0.2	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.4	0.4	0.5
HELIUM	0.06	0.04	0.16
HEATING VALUE*	1026	620	1011
SPECIFIC GRAVITY	0.572	0.722	0.565

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 34 SAMPLE 17608	INDEX 35 SAMPLE 17555	INDEX 36 SAMPLE 17810
STATE	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY	MILLER	POPE	POPE
FIELD	BLOOMBURG	DOVER	DOVER
WELL NAME	BRACKMAN NO. 1	KYLE "A" NO. 1	FREEMAN "C" NO. 2
LOCATION	SEC. 19, T18S, R28W	SEC. 26, T9N, R20W	SEC. 3L, T10N, R20W
OWNER	MARSHALL EXPLORATION, INC.	TXO PRODUCTION CORP.	TXO PRODUCTION CORP.
COMPLETED	01/08/85	12/17/84	05/20/85
SAMPLED	03/07/85	12/17/84	08/13/85
FORMATION	JURA-SMACKOVER	PENN-DUNN A	PENN-BARTON A
GEOLOGIC PROVINCE CODE	230	345	345
DEPTH, FEET	10632	4158	4251
WELLHEAD PRESSURE,PSIG	1000	650	NOT GIVEN
OPEN FLOW, MCFD	3000	500	2988
COMPONENT, MOLE PCT			
METHANE	64.4	98.1	86.0
ETHANE	11.1	0.9	1.0
PROPANE	4.7	0.1	0.1
N-BUTANE	2.1	0.0	0.0
ISOBUTANE	1.0	0.0	0.0
N-PENTANE	0.7	0.0	0.0
ISOPENTANE	0.5	0.0	0.0
CYCLOPENTANE	0.1	0.0	0.0
HEXANES PLUS	0.5	0.0	0.0
NITROGEN	4.4	0.5	10.3
OXYGEN	0.3	0.1	2.3
ARGON	TRACE	TRACE	0.2
HYDROGEN	0.0	0.0	0.1
HYDROGEN SULFIDE**	6.8	0.0	0.0
CARBON DIOXIDE	3.2	0.3	0.1
HELIUM	0.02	0.14	0.12
HEATING VALUE*	1202	1012	892
SPECIFIC GRAVITY	0.834	0.566	0.618

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 37 SAMPLE 17811	INDEX 38 SAMPLE 17812	INDEX 39 SAMPLE 17569
STATE	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY	POPE	POPE	POPE
FIELD	DOVER	FERGERSON	MASSARD
WELL NAME	BIBLER "C" NO. 1	BLAIR LAWS NO. 4-3	AIRPORT "83" NO. 1
LOCATION	SEC. 25, T10N, R21W	SEC. 4, T8N, R20W	SEC. 34, T8N, R22W
OWNER	TXO PRODUCTION CORP.	TEXACO PRODUCING, INC.	HANNA OIL & GAS CO.
COMPLETED	04/10/84	04/30/85	--/--/00
SAMPLED	08/13/85	08/15/85	01/18/85
FORMATION	PENN-PENTERS	PENN-DUNN B & PAUL BARTON	DEVO-HUNTON
GEOLOGIC PROVINCE CODE	345	345	345
DEPTH, FEET	4438	4866	6066
WELLHEAD PRESSURE,PSIG	215	1060	NOT GIVEN
OPEN FLOW, MCFD	1600	2827	5385
COMPONENT, MOLE PCT			
METHANE	95.1	94.1	88.7
ETHANE	0.9	1.0	1.1
PROPANE	0.1	0.1	0.1
N-BUTANE	0.0	0.0	0.0
ISOBUTANE	0.0	0.0	0.0
N-PENTANE	0.0	0.0	0.0
ISOPENTANE	0.0	0.0	0.0
CYCLOPENTANE	0.0	0.0	0.0
HEXANES PLUS	0.0	0.0	0.0
NITROGEN	1.8	4.4	8.6
OXYGEN	0.0	0.0	0.4
ARGON	TRACE	TRACE	0.1
HYDROGEN	TRACE	0.1	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	2.0	0.1	0.7
HELIUM	0.10	0.18	0.31
HEATING VALUE*	982	974	921
SPECIFIC GRAVITY	0.586	0.578	0.605

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 40 SAMPLE 17523	INDEX 41 SAMPLE 17801	INDEX 42 SAMPLE 17885
STATE	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY	POPE	POPE	POPE
FIELD	MORELAND	OAK GROVE	ROSS
WELL NAME	JERRY LOCK NO. 1-17	HOWARD NO.2	GEORGIA BROWN NO. 1
LOCATION	SEC. 17, T8N, R19W	SEC. 26, T8N, R18W	SEC. 12, T9N, R21W
OWNER	CHARLES E. MCRAY & ASSOC.	REVERE CORP.	TXO PRODUCTION CORP.
COMPLETED	06/28/83	03/28/85	06/24/85
SAMPLED	02/15/85	08/08/85	08/25/85
FORMATION	PENN-HALE M	PENN-MCGUIRE	PENN-HALE M & B
GEOLOGIC PROVINCE CODE	345	345	345
DEPTH, FEET	6503	4421	5320
WELLHEAD PRESSURE,PSIG	1525	1157	1880
OPEN FLOW, MCFD	26620	7652	995
COMPONENT, MOLE PCT			
METHANE	96.1	93.5	97.4
ETHANE	0.9	0.9	1.3
PROPANE	0.1	0.0	0.1
N-BUTANE	0.0	1.0	0.0
ISOBUTANE	0.0	0.0	0.0
N-PENTANE	0.0	0.0	0.0
ISOPENTANE	0.0	0.3	0.0
CYCLOPENTANE	0.0	0.1	0.0
HEXANES PLUS	0.0	0.2	0.0
NITROGEN	1.4	2.9	0.5
OXYGEN	0.3	0.1	0.0
ARGON	TRACE	0.1	TRACE
HYDROGEN	0.0	0.1	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	1.0	0.8	0.6
HELIUM	0.11	0.36	0.05
HEATING VALUE*	992	1024	1013
SPECIFIC GRAVITY	0.576	0.608	0.569

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 43 SAMPLE 17529	INDEX 44 SAMPLE 17530	INDEX 45 SAMPLE 17778
STATE	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY	POPE	POPE	SEBASTIAN
FIELD	SILEX	SILEX	BONANZA
WELL NAME	SILEX NO. 7	SILEX NO. 7	STEPHENS "G" NO. 1
LOCATION	SEC. 22, T10N, T21W	SEC. 22, T10N, R21W	SEC. 27, T7N, R31W
OWNER	ARKLA GAS CO.	ARKLA GAS CO.	TXO PRODUCTION CORP.
COMPLETED	04/06/84	04/06/84	03/11/85
SAMPLED	11/30/84	11/30/84	07/01/85
FORMATION	PENN-HUDSON	PENN-KELLY	PENN-ORR
GEOLOGIC PROVINCE CODE	345	345	345
DEPTH, FEET	2174	2770	7323
WELLHEAD PRESSURE, PSIG	940	1115	1000
OPEN FLOW, MCFD	1074	7774	500
COMPONENT, MOLE PCT			
METHANE	97.9	97.4	77.0
ETHANE	1.0	1.0	0.8
PROPANE	TRACE	TRACE	0.1
N-BUTANE	0.0	0.0	0.0
ISOBUTANE	0.0	0.0	0.0
N-PENTANE	0.0	0.0	0.0
ISOPENTANE	0.0	0.0	0.0
CYCLOPENTANE	0.0	0.0	0.0
HEXANES PLUS	0.0	0.0	0.0
NITROGEN	0.8	1.2	19.8
OXYGEN	0.0	0.1	TRACE
ARGON	TRACE	TRACE	0.0
HYDROGEN	TRACE	TRACE	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.1	2.2
HELIUM	0.10	0.10	0.07
HEATING VALUE*	1010	1005	797
SPECIFIC GRAVITY	0.563	0.565	0.662

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 46 SAMPLE 17855	INDEX 47 SAMPLE 17857	INDEX 48 SAMPLE 17858
STATE	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY	SEBASTIAN	SEBASTIAN	SEBASTIAN
FIELD	GREENWOOD	GREENWOOD	GREENWOOD
WELL NAME	OPEE NO. 1	JOHNSON "AH" NO. 1-C	JOHNSON "AH" NO. 1-T
LOCATION	SEC. 3, T6N, R30W	SEC. 6, T6N, R30W	SEC. 6, T6N, R30W
OWNER	TXO PRODUCTION CORP.	TXO PRODUCTION CORP.	TXO PRODUCTION CORP.
COMPLETED	05/10/85	02/28/85	02/28/85
SAMPLED	09/25/85	09/25/85	09/25/85
FORMATION	PENN-NICHOLS	PERM-ALMA U	PERM-ALMA U
GEOLOGIC PROVINCE CODE	345	345	345
DEPTH, FEET	6455	2070	2070
WELLHEAD PRESSURE,PSIG	NOT GIVEN	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD	1300	4000	4000
COMPONENT, MOLE PCT			
METHANE	81.4	98.5	96.5
ETHANE	1.1	0.9	1.4
PROPANE	0.2	0.1	0.1
N-BUTANE	0.0	0.0	0.0
ISOBUTANE	0.0	0.0	0.0
N-PENTANE	0.0	0.0	0.0
ISOPENTANE	0.0	0.0	0.0
CYCLOPENTANE	0.0	0.0	0.0
HEXANES PLUS	0.0	0.0	0.0
NITROGEN	16.6	0.3	1.6
OXYGEN	0.0	0.0	0.1
ARGON	TRACE	0.0	TRACE
HYDROGEN	TRACE	0.1	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.5	TRACE	0.2
HELIUM	0.05	0.09	0.06
HEATING VALUE*	849	1017	1006
SPECIFIC GRAVITY	0.634	0.560	0.571

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H_2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 49 SAMPLE 17511	INDEX 50 SAMPLE 17512	INDEX 51 SAMPLE 17815
STATE	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY	SEBASTIAN	SEBASTIAN	UNION
FIELD	MASSARD	MASSARD	HOGG
WELL NAME	LARCO UPPER TBG.	LARCO LOWER TBG.	FIRST LAND & TIMBER NO.1-7
LOCATION	SEC. 21, T8N, R32W	SEC. 21, T8N, R32W	SEC. 7, T18S, R16W
OWNER	TXO PRODUCTION CORP.	TXO PRODUCTION CORP.	MAY PETROLEUM, INC.
COMPLETED	--/--/00	--/--/00	10/--/84
SAMPLED	10/26/84	10/26/84	08/22/85
FORMATION	PENN-ORR	PENN-PENTERS	JURA-COTTON VALLEY
GEOLOGIC PROVINCE CODE	345	345	230
DEPTH, FEET	5992	6970	6720
WELLHEAD PRESSURE,PSIG	2637	1000	980
OPEN FLOW, MCFD	NOT GIVEN	NOT GIVEN	230
COMPONENT, MOLE PCT			
METHANE	90.9	94.8	77.9
ETHANE	1.6	1.3	8.5
PROPANE	0.1	0.1	3.6
N-BUTANE	0.0	0.0	1.6
ISOBUTANE	0.0	0.0	1.4
N-PENTANE	0.0	0.0	0.6
ISOPENTANE	0.0	0.0	0.4
CYCLOPENTANE	0.0	0.0	0.1
HEXANES PLUS	0.0	0.0	0.8
NITROGEN	6.3	2.5	4.3
OXYGEN	0.1	TRACE	0.1
ARGON	0.1	TRACE	TRACE
HYDROGEN	0.1	0.2	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.4	0.9	0.7
HELIUM	0.26	0.13	0.03
HEATING VALUE*	952	987	1223
SPECIFIC GRAVITY	0.592	0.579	0.744

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 52 SAMPLE 17636	INDEX 53 SAMPLE 17585	INDEX 54 SAMPLE 17428
STATE	ARKANSAS	CALIFORNIA	CALIFORNIA
COUNTY	WASHINGTON	COLUSA	CONTRA COSTA
FIELD	BRENTWOOD	ARBUCKLE N	BRENTWOOD E
WELL NAME	WRLTA NO.2	ZUMWALT NO. 1	NGC-CESA NO. 1
LOCATION	SEC. 32, T14N, R29W	SEC. 10, T14N, R2W	SEC. 1, T1N, R2E
OWNER	KATY ENERGY CORP.	NORTHERN MICHIGAN EXPL. CO.	WESTERN CONTINENTAL OPER. CO
COMPLETED	12/--/83	05/05/83	05/17/83
SAMPLED	03/26/85	02/01/85	09/24/84
FORMATION	MISS-WEDINGTON	CRET-FORBES	CRET-MASSIVE 3RD ZONE
GEOLOGIC PROVINCE CODE	345	730	730
DEPTH, FEET	930	6957	8000
WELLHEAD PRESSURE,PSIG	45	2000	750
OPEN FLOW, MCFD	20	3456	490
COMPONENT, MOLE PCT			
METHANE	76.9	97.1	92.6
ETHANE	6.8	0.3	4.1
PROPANE	2.1	TRACE	1.2
N-BUTANE	0.5	0.0	0.3
ISOBUTANE	0.3	0.0	0.3
N-PENTANE	0.1	0.0	0.0
ISOPENTANE	0.1	0.0	0.3
CYCLOPENTANE	TRACE	0.0	0.2
HEXANES PLUS	0.1	0.0	0.2
NITROGEN	9.9	2.4	0.4
OXYGEN	2.2	0.1	TRACE
ARGON	0.1	TRACE	0.0
HYDROGEN	TRACE	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.8	0.1	0.4
HELIUM	0.05	TRACE	TRACE
HEATING VALUE*	996	989	1093
SPECIFIC GRAVITY	0.689	0.567	0.616

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 55 SAMPLE 17429	INDEX 56 SAMPLE 17681	INDEX 57 SAMPLE 16233
STATE	CALIFORNIA	CALIFORNIA	CALIFORNIA
COUNTY	CONTRA COSTA	CONTRA COSTA	CONTRA COSTA
FIELD	BRENTWOOD E	LOS MEDANOS	OAKLEY S
WELL NAME	NGC-KYSH NO. 1	PERRY NO. 1	NGC-NUNN NO. 1
LOCATION	SEC. 6, T1N, R3E	SEC. 8, T2N, R1W	SEC. 7, T1N, R3E
OWNER	WESTERN CONTINENTAL OPER. CO	CHEVRON U.S.A., INC.	WESTERN CONTINENTAL OPER. CO
COMPLETED	05/--/84	08/24/83	--/--/00
SAMPLED	09/24/84	05/23/85	04/--/81
FORMATION	NOT GIVEN	EOCE-DOMENGINE	NOT GIVEN
GEOLOGIC PROVINCE CODE	730	730	730
DEPTH, FEET	8357	2630	NOT GIVEN
WELLHEAD PRESSURE,PSIG	720	850	NOT GIVEN
OPEN FLOW, MCFD	NOT GIVEN	1800	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE	92.6	97.9	90.5
ETHANE	4.2	0.3	3.9
PROPANE	1.3	0.1	1.3
N-BUTANE	0.3	0.0	0.3
ISOBUTANE	0.2	0.0	0.2
N-PENTANE	TRACE	0.0	TRACE
ISOPENTANE	0.3	0.0	0.2
CYCLOPENTANE	0.1	0.0	0.1
HEXANES PLUS	0.1	0.0	0.1
NITROGEN	0.4	1.2	2.5
OXYGEN	TRACE	0.0	0.5
ARGON	TRACE	0.0	TRACE
HYDROGEN	0.0	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.4	0.5	0.4
HELIUM	TRACE	TRACE	TRACE
HEATING VALUE*	1086	1000	1055
SPECIFIC GRAVITY	0.611	0.567	0.619

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 58 SAMPLE 17526	INDEX 59 SAMPLE 17683	INDEX 60 SAMPLE 17612
STATE	CALIFORNIA	CALIFORNIA	CALIFORNIA
COUNTY	GLENN	MERCED	SACRAMENTO
FIELD	ORLAND	NOT GIVEN	NOT GIVEN
WELL NAME	WHITE NO. 1	SLOPE INDICATOR HOLE SI-6	NOT GIVEN
LOCATION	SEC. 29, T22N, R3W	O'NEILL PUMPING PLANT	NOT GIVEN
OWNER	NATURAL GAS CORP. OF CALIF.	U.S. BUREAU OF RECLAMATION	U.S. BUREAU OF RECLAMATION
COMPLETED	10/14/84	10/28/80	02/08/85
SAMPLED	03/16/85	05/15/85	03/11/85
FORMATION	CRET-KIONE	CRET-MARINE	NOT GIVEN
GEOLOGIC PROVINCE CODE	730	745	730
DEPTH, FEET	6375	130	NOT GIVEN
WELLHEAD PRESSURE,PSIG	780	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE	91.0	37.2	69.7
ETHANE	0.0	0.4	TRACE
PROPANE	0.0	TRACE	TRACE
N-BUTANE	0.0	0.0	0.0
ISOBUTANE	0.0	0.0	0.0
N-PENTANE	0.0	0.0	0.0
ISOPENTANE	0.0	0.0	0.0
CYCLOPENTANE	0.0	0.0	0.0
HEXANES PLUS	0.0	0.0	0.0
NITROGEN	8.9	3.2	16.2
OXYGEN	0.0	0.5	0.1
ARGON	TRACE	0.1	0.3
HYDROGEN	0.0	57.7	0.0
HYDROGEN SULFIDE**	0.0	0.0	1.0
CARBON DIOXIDE	0.1	0.9	12.6
HELIUM	0.01	TRACE	TRACE
HEATING VALUE*	922	571	712
SPECIFIC GRAVITY	0.592	0.302	0.753

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 61 SAMPLE 16326	INDEX 62 SAMPLE 17831	INDEX 63 SAMPLE 17882
STATE	CALIFORNIA	CALIFORNIA	CALIFORNIA
COUNTY	SAN JOAQUIN	SANTA BARBARA	SOLANO
FIELD	BUTTES-COLDANI	MOLINO	WINTERS
WELL NAME	COLDANI NO. 15-44	MOLINO NO. 7	MARGARET EDWARDS NO. 1
LOCATION	SEC. 15, T3N, R5E	SEC. 8, T4N, R31W	SEC. 4, T7N, R1E
OWNER	ARGO PETROLEUM CORP.	PHILLIPS PETROLEUM CO.	HILLIARD OIL & GAS, INC.
COMPLETED	08/28/81	--/--/83	05/04/84
SAMPLED	08/31/81	09/16/85	10/24/85
FORMATION	CRET-STARKEY	EOCE-MATILIJA	CRET-STARKEY
GEOLOGIC PROVINCE CODE	730	750	730
DEPTH, FEET	NOT GIVEN	10195	4572
WELLHEAD PRESSURE,PSIG	NOT GIVEN	4300	1755
OPEN FLOW, MCFD	2525	25000	1389
COMPONENT, MOLE PCT			
METHANE	91.6	88.5	95.0
ETHANE	0.2	5.5	0.9
PROPANE	TRACE	2.3	0.1
N-BUTANE	0.0	0.7	0.0
ISOBUTANE	0.0	0.5	0.0
N-PENTANE	0.0	0.2	0.0
ISOPENTANE	0.0	0.4	0.0
CYCLOPENTANE	0.0	0.2	0.0
HEXANES PLUS	0.0	0.4	0.0
NITROGEN	8.1	1.0	3.9
OXYGEN	0.0	0.1	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	TRACE	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	TRACE	0.2	0.1
HELIUM	0.01	TRACE	0.02
HEATING VALUE*	931	1149	981
SPECIFIC GRAVITY	0.588	0.655	0.577

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 54 SAMPLE 17912	INDEX 65 SAMPLE 16726	INDEX 66 SAMPLE 17408
STATE	COLORADO	COLORADO	COLORADO
COUNTY	ARAPAHOE	BOULDER	BOULDER
FIELD	CHINOOK	WATTENBERG	WILDCAT
WELL NAME	RHINE NO. 12-29	LABER K UNIT NO. 1	HOUSE NO. 1-36
LOCATION	SEC. 29, T5S, R62W	SEC. 24, T2N, R69W	SEC. 36, T2N, R70W
OWNER	ROCKY MOUNTAIN PROD. CO.	VESSELS OIL AND GAS CO.	MARTIN EXPL. MGMT. CORP.
COMPLETED	02/--/85	04/20/82	04/20/83
SAMPLED	11/12/85	12/06/82	09/--/84
FORMATION	CRET-MUDDY J	CRET-DAKOTA J	CRET-CODELL
GEOLOGIC PROVINCE CODE	540	540	540
DEPTH, FEET	7518	8000	7382
WELLHEAD PRESSURE,PSIG	1500	1280	NOT GIVEN
OPEN FLOW, MCFD	600	560	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE	74.8	85.1	70.8
ETHANE	11.5	8.0	14.3
PROPANE	5.7	2.0	6.9
N-BUTANE	1.8	0.6	2.3
ISOBUTANE	0.4	0.3	1.1
N-PENTANE	0.7	0.2	0.6
ISOPENTANE	0.3	0.3	0.5
CYCLOPENTANE	0.1	0.1	0.1
HEXANES PLUS	0.3	0.3	0.3
NITROGEN	2.3	0.5	1.6
OXYGEN	TRACE	TRACE	0.2
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.1	0.2	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	1.9	2.4	1.4
HELIUM	0.05	0.02	0.02
HEATING VALUE*	1248	1129	1333
SPECIFIC GRAVITY	0.757	0.671	0.798

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 57 SAMPLE 16912	INDEX 68 SAMPLE 16917	INDEX 69 SAMPLE 16937
STATE	COLORADO	COLORADO	COLORADO
COUNTY	CHEYENNE	CHEYENNE	CHEYENNE
FIELD	CHEYENNE WELLS	CHEYENNE WELLS	CHEYENNE WELLS
WELL NAME	CHAMPLIN NO.124 AMOCO A BATT	CHAMPLIN NO. 124 AMOCO C2	CHAMPLIN 360 AMOCO "A" NO. 1
LOCATION	SEC. 33, T13S, R44W	SEC. 31, T13S, R44W	T13S, R44W
OWNER	AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO.
COMPLETED	--/--/83	--/--/83	--/--/83
SAMPLED	05/03/83	05/03/83	05/02/83
FORMATION	PENN-MORROW	PENN-MORROW	PENN-MORROW
GEOLOGIC PROVINCE CODE	450	450	450
DEPTH, FEET	NOT GIVEN	NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE,PSIG	NOT GIVEN	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE	17.4	12.6	9.2
ETHANE	3.6	1.8	3.0
PROPANE	6.1	2.7	25.5
N-BUTANE	6.9	2.0	20.9
ISOBUTANE	3.1	1.7	10.2
N-PENTANE	3.2	1.9	3.7
ISOPENTANE	4.9	2.3	9.4
CYCLOPENTANE	0.8	1.0	1.1
HEXANES PLUS	2.3	2.5	2.6
NITROGEN	45.0	61.7	10.0
OXYGEN	TRACE	TRACE	0.1
ARGON	0.8	1.3	0.1
HYDROGEN	TRACE	TRACE	0.0
HYDROGEN SULFIDE**	TRACE	0.0	1.8
CARBON DIOXIDE	3.3	3.5	2.4
HELIUM	2.63	5.06	0.12
HEATING VALUE*	1230	700	2605
SPECIFIC GRAVITY	1.227	1.086	1.713

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 70 SAMPLE 16916	INDEX 71 SAMPLE 16919	INDEX 72 SAMPLE 16915
STATE	COLORADO	COLORADO	COLORADO
COUNTY	CHEYENNE	CHEYENNE	CHEYENNE
FIELD	GOLDEN SPIKE	GOLDEN SPIKE	GROUSE
WELL NAME	LOWE NO. 1	UPRR NO. 1-1	LOWE NO. 4
LOCATION	SEC. 12, T16S, R45W	SEC. 1, T16S, R45W	SEC. 26, T15S, R46W
OWNER	INEXCO OIL CO.	INEXCO OIL CO.	TXO PRODUCTION CORP.
COMPLETED	01/29/69	--/--/83	10/26/82
SAMPLED	05/03/83	05/03/83	05/03/83
FORMATION	MISS---	MISS---	MISS-SPERGEN
GEOLOGIC PROVINCE CODE	450	450	450
DEPTH, FEET	5455	NOT GIVEN	5572
WELLHEAD PRESSURE,PSIG	NOT GIVEN	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD	NOT GIVEN	NOT GIVEN	3
COMPONENT, MOLE PCT			
METHANE	11.4	11.7	16.7
ETHANE	1.8	4.1	17.2
PROPANE	2.6	9.8	24.1
N-BUTANE	2.4	12.9	9.9
ISOBUTANE	1.2	5.5	4.0
N-PENTANE	1.4	8.1	1.9
ISOPENTANE	1.5	10.7	5.6
CYCLOPENTANE	0.5	0.6	0.3
HEXANES PLUS	1.3	4.4	1.3
NITROGEN	64.0	25.7	16.9
OXYGEN	TRACE	TRACE	TRACE
ARGON	0.8	0.3	0.3
HYDROGEN	TRACE	TRACE	0.1
HYDROGEN SULFIDE**	TRACE	0.0	0.0
CARBON DIOXIDE	2.0	4.5	0.9
HELIUM	9.08	1.66	0.80
HEATING VALUE*	546	2118	1970
SPECIFIC GRAVITY	0.994	1.580	1.352

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 73 SAMPLE 16939	INDEX 74 SAMPLE 16938	INDEX 75 SAMPLE 16944
STATE	COLORADO	COLORADO	COLORADO
COUNTY	CHEYENNE	CHEYENNE	CHEYENNE
FIELD	GROUSE	LADDER CREEK	LADDER CREEK
WELL NAME	LOWE NO. 2	MILLER K B NO. 2	UPRR BAUGHMAN FARMS
LOCATION	SEC. 26, T15S, R46W	SEC. 12, T15S, R45W	NOT GIVEN
OWNER	TXO PRODUCTION CORP.	PHILLIPS PETROLEUM CO.	INEXCO OIL CO.
COMPLETED	02/13/81	--/--/83	--/--/83
SAMPLED	05/03/83	05/04/83	05/04/83
FORMATION	MISS-SPERGEN	MISS-SPERGEN	MISS-SPERGEN
GEOLOGIC PROVINCE CODE	450	450	450
DEPTH, FEET	5460	NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE,PSIG	NOT GIVEN	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE	16.3	11.7	11.3
ETHANE	16.2	2.2	2.5
PROPANE	26.3	4.7	5.9
N-BUTANE	11.8	4.3	5.7
ISOBUTANE	4.4	2.2	3.0
N-PENTANE	3.3	2.1	2.8
ISOPENTANE	4.0	3.1	4.3
CYCLOPENTANE	0.2	0.8	1.1
HEXANES PLUS	1.3	2.0	2.8
NITROGEN	14.4	61.0	52.9
OXYGEN	TRACE	TRACE	0.3
ARGON	0.2	0.4	0.6
HYDROGEN	0.1	0.1	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.8	1.0	1.6
HELIUM	0.69	4.44	5.14
HEATING VALUE*	2071	854	1094
SPECIFIC GRAVITY	1.387	1.121	1.203

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 76 SAMPLE 16946	INDEX 77 SAMPLE 16947	INDEX 78 SAMPLE 16941
STATE	COLORADO	COLORADO	COLORADO
COUNTY	CHEYENNE	CHEYENNE	CHEYENNE
FIELD	LADDER CREEK	LADDER CREEK	SORRENTO
WELL NAME	ROOT NO. 24-7	BAUGHMAN A NO. 2	MC CORMICK NO. 12
LOCATION	SEC. 1, T15S, R45W	NOT GIVEN	SEC. 9, T14S, R49W
OWNER	CHAMPLIN PETROLEUM CO.	PHILLIPS PETROLEUM CO.	CHAMPLIN PETROLEUM CO.
COMPLETED	--/--/83	--/--/83	--/--/83
SAMPLED	05/04/83	05/04/83	05/04/83
FORMATION	MISS-SPERGEN	MISS-SPERGEN	PENN-MARMATON
GEOLOGIC PROVINCE CODE	450	450	450
DEPTH, FEET	NOT GIVEN	NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE,PSIG	NOT GIVEN	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE	12.4	14.2	28.1
ETHANE	3.6	2.1	14.7
PROPANE	9.3	5.2	16.8
N-BUTANE	10.6	6.4	6.3
ISOBUTANE	4.4	2.4	2.7
N-PENTANE	5.1	3.6	2.2
ISOPENTANE	7.5	5.1	3.0
CYCLOPENTANE	0.7	0.6	0.4
HEXANES PLUS	2.9	2.3	1.1
NITROGEN	40.1	49.1	23.0
OXYGEN	TRACE	TRACE	TRACE
ARGON	0.3	0.7	0.1
HYDROGEN	TRACE	TRACE	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.1
CARBON DIOXIDE	1.4	2.5	1.0
HELIUM	1.71	5.61	0.28
HEATING VALUE*	1651	1125	1582
SPECIFIC GRAVITY	1.396	1.195	1.171

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 79 SAMPLE 16942	INDEX 80 SAMPLE 16943	INDEX 81 SAMPLE 16945
STATE	COLORADO	COLORADO	COLORADO
COUNTY	CHEYENNE	CHEYENNE	CHEYENNE
FIELD	SORRENTO	SORRENTO	SORRENTO
WELL NAME	MC CORMICK NO. 5	MC CORMICK NO.'S 5,6,7,& 8	MC CORMICK SEC. 34 BATT.
LOCATION	SEC. 3, T14S, R49W	SEC. 3, T14S, R49W	SEC. 33, T13S, R49W
OWNER	CHAMPLIN PETROLEUM CO.	CHAMPLIN PETROLEUM CO.	CHAMPLIN PETROLEUM CO.
COMPLETED	--/--/83	--/--/00	--/--/00
SAMPLED	05/04/83	05/04/83	05/04/83
FORMATION	PENN-MORROW GAS CAP	PENN-MORROW GAS CAP	PENN-MORROW, SOLUTION&GASCAP
GEOLOGIC PROVINCE CODE	450	450	450
DEPTH, FEET	5482	NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE,PSIG	280	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD	73	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE	38.2	38.5	37.8
ETHANE	8.1	8.3	11.5
PROPANE	6.7	6.7	11.4
N-BUTANE	2.9	2.8	5.2
ISOBUTANE	0.9	0.8	1.6
N-PENTANE	0.7	0.6	1.0
ISOPENTANE	1.3	1.1	2.1
CYCLOPENTANE	0.3	0.1	0.3
HEXANES PLUS	0.5	0.3	0.6
NITROGEN	37.7	37.9	26.4
OXYGEN	TRACE	TRACE	TRACE
ARGON	0.2	0.2	0.2
HYDROGEN	0.1	0.1	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.8	0.8	1.0
HELIUM	1.72	1.71	1.02
HEATING VALUE*	957	926	1289
SPECIFIC GRAVITY	0.934	0.917	1.026

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 82 SAMPLE 16948	INDEX 83 SAMPLE 16949	INDEX 84 SAMPLE 17705
STATE	COLORADO	COLORADO	COLORADO
COUNTY	CHEYENNE	CHEYENNE	DOLORES
FIELD	SORRENTO	SORRENTO	PAPOOSE CANYON
WELL NAME	MC CORMICK NO. 3	MC CORMICK NO. 31-9	WARREN NO. 1-16
LOCATION	SEC. 9, T14S, R49W	SEC. 9, T14S, R49W	SEC. 16, T39N, R19W
OWNER	CHAMPLIN PETROLEUM CO.	CHAMPLIN PETROLEUM CO.	SAMSON RESOURCES CO.
COMPLETED	--/--/83	09/11/80	--/--/00
SAMPLED	05/04/83	05/04/83	06/12/85
FORMATION	PENN-MORROW GAS CAP	PENN-MORROW GAS CAP	PENN-DESERT CREEK
GEOLOGIC PROVINCE CODE	450	450	585
DEPTH, FEET	NOT GIVEN	5494	6280
WELLHEAD PRESSURE,PSIG	NOT GIVEN	NOT GIVEN	2600
OPEN FLOW, MCFD	NOT GIVEN	118	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE	39.4	39.5	77.7
ETHANE	8.0	7.9	11.9
PROPANE	6.0	5.7	4.9
N-BUTANE	2.4	2.2	1.5
ISOBUTANE	0.7	0.6	0.9
N-PENTANE	0.6	0.5	0.4
ISOPENTANE	1.0	0.9	0.4
CYCLOPENTANE	0.2	0.2	TRACE
HEXANES PLUS	0.3	0.3	0.2
NITROGEN	38.6	39.1	1.9
OXYGEN	TRACE	TRACE	0.1
ARGON	0.2	0.2	TRACE
HYDROGEN	0.1	0.1	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.8	0.8	0.1
HELIUM	1.76	1.80	0.02
HEATING VALUE*	894	867	1253
SPECIFIC GRAVITY	0.905	0.893	0.729

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 85 SAMPLE 17710	INDEX 86 SAMPLE 17599	INDEX 87 SAMPLE 17695
STATE	COLORADO	COLORADO	COLORADO
COUNTY	GARFIELD	GARFIELD	KIOWA
FIELD	CALF CANYON	RULISON	HASWELL
WELL NAME	CALF CANYON NO. 19-1	RULISON NO. 161	LAS ANIMAS NO. 1-1
LOCATION	NOT GIVEN	SEC. 12, T6S, R94W	SEC. 1, T19S, R51W
OWNER	AMERICAN RESOURCES MGMT. COR	WILLIAMS EXPLORATION CO.	SAMSON OIL CO.
COMPLETED	11/29/83	04/16/84	05/19/84
SAMPLED	06/10/85	02/21/85	05/27/85
FORMATION	CRET-MESAVERDE	EOCE-WASATCH	PENN-MORROW
GEOLOGIC PROVINCE CODE	595	595	450
DEPTH, FEET	6296	1461	5147
WELLHEAD PRESSURE,PSIG	356	390	1010
OPEN FLOW, MCFD	100	NOT GIVEN	3749
COMPONENT, MOLE PCT			
METHANE	94.3	96.7	70.4
ETHANE	2.5	2.4	12.7
PROPANE	0.7	0.2	6.5
N-BUTANE	0.1	0.1	1.7
ISOBUTANE	TRACE	0.0	0.8
N-PENTANE	0.1	TRACE	0.0
ISOPENTANE	0.0	TRACE	0.3
CYCLOPENTANE	TRACE	TRACE	0.1
HEXANES PLUS	0.1	TRACE	0.2
NITROGEN	0.7	0.4	6.2
OXYGEN	TRACE	TRACE	0.0
ARGON	0.5	TRACE	TRACE
HYDROGEN	0.8	TRACE	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.2	TRACE	0.5
HELIUM	TRACE	0.02	0.51
HEATING VALUE*	1034	1031	1221
SPECIFIC GRAVITY	0.585	0.570	0.761

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 88 SAMPLE 17920	INDEX 89 SAMPLE 16911	INDEX 90 SAMPLE 16914
STATE	COLORADO	COLORADO	COLORADO
COUNTY	KIOWA	KIT CARSON	KIT CARSON
FIELD	SALT LAKE	LOOKOUT	LOOKOUT
WELL NAME	FRAZEE-G NO. 1	HICKS NO. B-1	PIERSON NO. J-3
LOCATION	SEC. 10, T19S, R50W	SEC. 24, T11S, R45W	SEC. 20, T11S, R44W
OWNER	TXO PRODUCTION CORP.	TXO PRODUCTION CORP.	TXO PRODUCTION CORP.
COMPLETED	10/20/84	08/04/77	05/20/78
SAMPLED	11/26/85	05/03/83	05/02/83
FORMATION	PENN-MORROW	PENN-MORROW	PENN-MORROW
GEOLOGIC PROVINCE CODE	450	540	540
DEPTH, FEET	5258	5360	5348
WELLHEAD PRESSURE,PSIG	820	816	588
OPEN FLOW, MCFD	2816	5662	1388
COMPONENT, MOLE PCT			
METHANE	60.7	24.2	21.4
ETHANE	9.3	1.9	1.7
PROPANE	4.4	1.3	1.3
N-BUTANE	1.3	0.7	0.8
ISOBUTANE	0.3	0.2	0.3
N-PENTANE	0.4	0.2	0.3
ISOPENTANE	0.2	0.4	0.4
CYCLOPENTANE	TRACE	0.1	TRACE
HEXANES PLUS	0.1	0.2	0.2
NITROGEN	20.6	65.9	68.4
OXYGEN	0.1	0.0	0.1
ARGON	0.1	0.3	0.3
HYDROGEN	0.0	0.1	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.7	1.0	0.7
HELIUM	1.60	3.49	4.01
HEATING VALUE*	980	383	359
SPECIFIC GRAVITY	0.768	0.878	0.886

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 91 SAMPLE 16918	INDEX 92 SAMPLE 16940	INDEX 93 SAMPLE 17503
STATE	COLORADO	COLORADO	COLORADO
COUNTY	KIT CARSON	KIT CARSON	LOGAN
FIELD	LOOKOUT	LOOKOUT	FRENCHMAN CREEK
WELL NAME	CHAMPLIN PIERSON NO. 1	CHAMPLIN KIRSCHMER NO. 1	HOMMEGRENOUILLE NO. 1
LOCATION	SEC. 19, T11S, R44W	SEC. 21, T11S, R44W	SEC. 1, T7N, R51W
OWNER	TXO PRODUCTION CORP.	TXO PRODUCTION CORP.	ARCO OIL & GAS CO.
COMPLETED	02/01/78	--/--/83	01/25/84
SAMPLED	05/03/83	05/02/83	10/11/84
FORMATION	PENN-MORROW	PENN-MORROW	CRET-DAKOTA J
GEOLOGIC PROVINCE CODE	540	540	540
DEPTH, FEET	5374	NOT GIVEN	4712
WELLHEAD PRESSURE,PSIG	796	NOT GIVEN	860
OPEN FLOW, MCFD	3821	NOT GIVEN	1750
COMPONENT, MOLE PCT			
METHANE	23.9	20.9	92.3
ETHANE	1.9	1.6	1.8
PROPANE	1.5	1.3	0.3
N-BUTANE	0.8	0.8	0.1
ISOBUTANE	0.4	0.3	0.7
N-PENTANE	0.3	0.3	0.0
ISOPENTANE	0.5	0.4	0.7
CYCLOPENTANE	0.1	TRACE	0.2
HEXANES PLUS	0.2	0.2	0.2
NITROGEN	65.7	68.7	2.6
OXYGEN	0.0	TRACE	TRACE
ARGON	0.3	0.3	TRACE
HYDROGEN	0.1	0.1	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.9	0.8	0.9
HELIUM	3.51	4.16	0.04
HEATING VALUE*	404	352	1050
SPECIFIC GRAVITY	0.887	0.886	0.619

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 94 SAMPLE 17580	INDEX 95 SAMPLE 17718	INDEX 96 SAMPLE 16244
STATE	COLORADO	COLORADO	COLORADO
COUNTY	LOGAN	LOGAN	MESA
FIELD	HORSETAIL N	RAYMER CREEK	WILDCAT
WELL NAME	SANDERS NO. 1-35	RAYMER CREEK NO. 1-22	HORSESHOE CANYON NO. 1
LOCATION	SEC. 35, T10N, R54W	SEC. 22, T8N, R55W	SEC. 29, T9S, R97W
OWNER	INDUSTRIAL GAS SERVICES, INC	POWER RESOURCES CORP.	KOCH EXPLORATION CO.
COMPLETED	12/16/83	--/--/00	10/27/78
SAMPLED	05/17/85	06/18/85	04/22/81
FORMATION	CRET-D SAND	CRET-D SAND	CRET-CEDAR MOUNTAIN
GEOLOGIC PROVINCE CODE	540	540	595
DEPTH, FEET	4947	5239	7134
WELLHEAD PRESSURE,PSIG	150	630	2150
OPEN FLOW, MCFD	200	250	695
COMPONENT, MOLE PCT			
METHANE	75.4	72.5	93.0
ETHANE	6.0	7.0	0.7
PROPANE	7.0	7.4	0.1
N-BUTANE	2.9	3.1	0.1
ISOBUTANE	0.7	1.1	TRACE
N-PENTANE	0.6	0.7	TRACE
ISOPENTANE	1.1	0.8	TRACE
CYCLOPENTANE	0.1	0.2	TRACE
HEXANES PLUS	0.4	0.4	0.1
NITROGEN	4.0	5.4	0.5
OXYGEN	TRACE	0.1	0.0
ARGON	TRACE	TRACE	TRACE
HYDROGEN	TRACE	TRACE	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	1.6	1.1	5.3
HELIUM	0.07	TRACE	0.04
HEATING VALUE*	1271	1286	966
SPECIFIC GRAVITY	0.785	0.802	0.615

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 97 SAMPLE 17823	INDEX 98 SAMPLE 17343	INDEX 99 SAMPLE 17804
STATE	COLORADO	COLORADO	COLORADO
COUNTY	MOFFAT	MONTEZUMA	MORGAN
FIELD	BLUE GRAVEL	WILDCAT	TOOTSIE
WELL NAME	SPETTER NO. 5-8	MARY AKIN UNIT NO. 2	LUNDOCK NO. 1
LOCATION	SEC. 8, T8N, R90W	SEC. 27, T38N, R14W	SEC. 14, T3N, R57W
OWNER	UNION TEXAS PETROLEUM CORP.	ARCO OIL & GAS CO.	SKAER ENTERPRISES, INC.
COMPLETED	07/21/83	07/12/83	08/19/83
SAMPLED	08/29/85	06/28/84	08/02/85
FORMATION	CRET-LEWIS	PENN-DESERT CREEK	CRET-DAKOTA J
GEOLOGIC PROVINCE CODE	535	585	540
DEPTH, FEET	3642	4756	5420
WELLHEAD PRESSURE,PSIG	500	268	1150
OPEN FLOW, MCFD	835	2500	3190
COMPONENT, MOLE PCT			
METHANE	60.1	88.3	81.9
ETHANE	3.5	7.2	9.1
PROPANE	1.4	1.6	3.4
N-BUTANE	0.4	0.3	1.0
ISOBUTANE	0.3	0.4	0.5
N-PENTANE	0.1	0.2	0.3
ISOPENTANE	0.1	TRACE	0.5
CYCLOPENTANE	TRACE	0.1	0.2
HEXANES PLUS	0.2	0.5	0.5
NITROGEN	33.5	1.2	1.9
OXYGEN	TRACE	TRACE	0.1
ARGON	TRACE	0.0	TRACE
HYDROGEN	0.2	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.2	TRACE	0.6
HELIUM	0.01	TRACE	0.04
HEATING VALUE*	751	1126	1199
SPECIFIC GRAVITY	0.744	0.638	0.702

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 100 SAMPLE 17709	INDEX 101 SAMPLE 17754	INDEX 102 SAMPLE 17657
STATE	COLORADO	COLORADO	COLORADO
COUNTY	RIO BLANCO	SAN MIGUEL	SAN MIGUEL
FIELD	SOLDIER CANYON	HAMILTON	NOT GIVEN
WELL NAME	SOLDIER CANYON NO. 26-4	U.S.A. NO. 1-35 H	STATE WELL NO. 1-36H
LOCATION	SEC. 26, T4S, R101W	SEC. 35, T45N, R15W	SEC. 36, T45N, R15W
OWNER	AMERICAN RESOURCES MGMT. CCR	COORS ENERGY CO.	COORS ENERGY CO.
COMPLETED	11/21/83	05/20/85	01/25/84
SAMPLED	06/03/85	07/20/85	04/29/85
FORMATION	CRET-DAKOTA	PERM-CUTLER	PENN-HERMOSA
GEOLOGIC PROVINCE CODE	595	585	585
DEPTH, FEET	6238	2574	8430
WELLHEAD PRESSURE,PSIG	1400	700	3000
OPEN FLOW, MCFD	480	212	300
COMPONENT, MOLE PCT			
METHANE	72.4	80.7	98.5
ETHANE	0.8	1.3	0.5
PROPANE	0.1	0.3	0.1
N-BUTANE	0.1	0.2	0.0
ISOBUTANE	0.0	0.1	0.0
N-PENTANE	0.1	0.2	0.0
ISOPENTANE	TRACE	TRACE	0.0
CYCLOPENTANE	TRACE	TRACE	0.0
HEXANES PLUS	0.1	0.2	0.0
NITROGEN	19.2	16.2	0.7
OXYGEN	4.4	TRACE	TRACE
ARGON	1.1	TRACE	TRACE
HYDROGEN	TRACE	0.1	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	1.8	0.1	0.2
HELIUM	0.05	0.35	0.02
HEATING VALUE*	763	878	1009
SPECIFIC GRAVITY	0.696	0.642	0.563

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 103 SAMPLE 17864	INDEX 104 SAMPLE 17925	INDEX 105 SAMPLE 17542
STATE	COLORADO	COLORADO	COLORADO
COUNTY	WASHINGTON	WELD	WELD
FIELD	DAPPER	EATON	GREELEY
WELL NAME	YOUNG NO. 2-35	AVERY NO. 1	TIPTON NO. 7-26 EG
LOCATION	SEC. 35, T25S, R50W	SEC. 10, T6N, R65W	SEC. 26, T6N, R65W
OWNER	SAND HILLS SOCIETY	CACHE EXPLORATION, INC.	COORS ENERGY CO.
COMPLETED	11/04/84	06/12/85	08/10/84
SAMPLED	10/13/85	12/04/85	12/07/84
FORMATION	CRET-NIOBRARA	CRET-CODELL	CRET-NIOBRARA & CODELL
GEOLOGIC PROVINCE CODE	540	540	540
DEPTH, FEET	2979	7120	6893
WELLHEAD PRESSURE,PSIG	550	1800	2000
OPEN FLOW, MCFD	150	3600	254
COMPONENT, MOLE PCT			
METHANE	92.9	77.0	72.2
ETHANE	0.7	11.8	13.7
PROPANE	0.2	4.2	6.3
N-BUTANE	0.2	1.4	2.2
ISOBUTANE	0.0	0.3	1.1
N-PENTANE	0.1	1.0	0.7
ISOPENTANE	0.0	0.0	0.7
CYCLOPENTANE	0.1	0.6	0.2
HEXANES PLUS	0.1	1.4	0.5
NITROGEN	3.9	0.3	0.6
OXYGEN	0.0	TRACE	0.1
ARGON	TRACE	0.0	TRACE
HYDROGEN	TRACE	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	1.6	2.0	1.7
HELIUM	0.04	0.01	0.01
HEATING VALUE*	979	1295	1345
SPECIFIC GRAVITY	0.600	0.766	0.798

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 106 SAMPLE 17848	INDEX 107 SAMPLE 17847	INDEX 108 SAMPLE 17846
STATE	COLORADO	COLORADO	COLORADO
COUNTY	YUMA	YUMA	YUMA
FIELD	BUCKBOARD	SCHRAMM	WHISPER
WELL NAME	PROBASCO NO. 1-10	BEAUPREZ NO. 1-35	PAGEL NO. 3-3
LOCATION	SEC. 10, T3N, R46W	SEC. 35, T2N, R47W	SEC. 3, T3N, R47W
OWNER	MIDLANDS GAS CORP.	MIDLANDS GAS CORP.	MIDLANDS GAS CORP.
COMPLETED	08/01/84	08/24/84	07/25/85
SAMPLED	09/19/85	09/19/85	09/19/85
FORMATION	CRET-NIOBRARA	CRET-NIOBRARA	CRET-NIOBRARA
GEOLOGIC PROVINCE CODE	540	540	540
DEPTH, FEET	2692	2606	2729
WELLHEAD PRESSURE,PSIG	465	430	490
OPEN FLOW, MCFD	90	75	78
COMPONENT, MOLE PCT			
METHANE	93.5	94.6	92.7
ETHANE	0.9	0.8	1.0
PROPANE	0.3	0.2	0.2
N-BUTANE	0.1	0.1	0.2
ISOBUTANE	TRACE	0.0	0.0
N-PENTANE	TRACE	0.1	0.2
ISOPENTANE	TRACE	TRACE	TRACE
CYCLOPENTANE	TRACE	TRACE	0.1
HEXANES PLUS	TRACE	0.1	0.1
NITROGEN	3.9	3.0	3.6
OXYGEN	0.2	0.0	0.1
ARGON	TRACE	TRACE	TRACE
HYDROGEN	TRACE	TRACE	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.8	1.0	1.6
HELIUM	0.07	0.06	0.06
HEATING VALUE*	974	991	987
SPECIFIC GRAVITY	0.587	0.588	0.603

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 109 SAMPLE 17234	INDEX 110 SAMPLE 17235	INDEX 111 SAMPLE 17561
STATE	ILLINOIS	ILLINOIS	INDIANA
COUNTY	CLINTON	CLINTON	DUBOIS
FIELD	STOLLETOWN	STOLLETOWN	ST. HENRY
WELL NAME	KOCH FAMILY FARMS NO. 2	EUGENE REMMERT NO. 1	LANGE FARMS INC. ETAL. NO.1
LOCATION	SEC. 28, T3N, R3W	SEC. 33, T3N, R3W	SEC. 24, T3S, R5W
OWNER	DUNNILL, JOHN F., JR., INC.	DUNNILL, JOHN F., JR., INC.	CITIZENS RESOURCES DEV. CORP
COMPLETED	08/01/83	06/21/83	09/--/84
SAMPLED	04/02/84	04/02/84	01/08/85
FORMATION	MISS-GOLCONDA	MISS-CYPRESS	MISS-TAR SPRINGS
GEOLOGIC PROVINCE CODE	315	315	315
DEPTH, FEET	832	970	458
WELLHEAD PRESSURE,PSIG	310	345	158
OPEN FLOW, MCFD	2000	1200	238
COMPONENT, MOLE PCT			
METHANE	95.2	95.1	96.2
ETHANE	TRACE	TRACE	0.1
PROPANE	TRACE	TRACE	0.1
N-BUTANE	0.0	0.0	0.0
ISOBUTANE	0.0	0.0	0.0
N-PENTANE	0.0	0.0	0.0
ISOPENTANE	0.0	0.0	0.0
CYCLOPENTANE	0.0	0.0	0.0
HEXANES PLUS	0.0	0.0	0.0
NITROGEN	4.4	4.4	3.4
OXYGEN	0.0	TRACE	0.0
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	TRACE	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.2	0.1
HELIUM	0.23	0.23	0.06
HEATING VALUE*	964	963	979
SPECIFIC GRAVITY	0.572	0.573	0.570

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 112 SAMPLE 17781	INDEX 113 SAMPLE 17782	INDEX 114 SAMPLE 17732
STATE	INDIANA	INDIANA	INDIANA
COUNTY	SPENCER	SPENCER	WARRICK
FIELD	PUEBLO	PUEBLO	FOLSOMVILLE
WELL NAME	BURGDORF NO. 1	MILLER NO. 1	JOHN KING NO. 1
LOCATION	SEC. 17, T8S, R6W	SEC. 20, T8S, R6W	SEC. 5,T5S, R7W
OWNER	REYNOLDS RESOURCES, INC.	REYNOLDS RESOURCES, INC.	MWC OIL CO.
COMPLETED	06/25/82	09/28/84	10/20/84
SAMPLED	07/04/85	07/04/85	06/30/85
FORMATION	MISS-WALTERSBURG	MISS-WALTERSBURG	MISS-WARSAW M
GEOLOGIC PROVINCE CODE	315	315	315
DEPTH, FEET	990	1070	2234
WELLHEAD PRESSURE,PSIG	465	511	825
OPEN FLOW, MCFD	3000	4000	150
COMPONENT, MOLE PCT			
METHANE	86.6	96.6	72.8
ETHANE	0.6	0.2	5.2
PROPANE	1.4	0.4	2.7
N-BUTANE	1.1	0.5	0.7
ISOBUTANE	0.2	0.2	0.2
N-PENTANE	0.3	0.2	0.2
ISOPENTANE	0.3	0.2	0.2
CYCLOPENTANE	0.2	0.2	0.1
HEXANES PLUS	0.3	0.2	0.1
NITROGEN	7.7	0.9	17.1
OXYGEN	0.9	0.0	0.1
ARGON	0.1	TRACE	TRACE
HYDROGEN	0.1	0.1	0.2
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.2	0.2	0.1
HELIUM	0.06	0.03	0.43
HEATING VALUE*	1017	1051	958
SPECIFIC GRAVITY	0.653	0.591	0.703

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 115 SAMPLE 17597	INDEX 116 SAMPLE 17932	INDEX 117 SAMPLE 17196
STATE	KANSAS	KANSAS	KANSAS
COUNTY	BARBER	BARBER	BARBER
FIELD	DEERHEAD	RHODES NE EXTENSION	STUMPH
WELL NAME	DEGEER NO. 1-34	COLTON NO. 2	HOAGLAND NO. 1-22
LOCATION	SEC. 34, T32S, R15W	SEC. 23, T32S, R11W	SEC. 22, T32S, R14W
OWNER	TEXAS ENERGIES, INC.	TXO PRODUCTION CORP.	TEXAS ENERGIES, INC.
COMPLETED	03/01/84	05/09/85	01/07/82
SAMPLED	02/20/85	--/--/00	02/23/84
FORMATION	PENN-MARMATON	PENN-TARKIO	MISS---
GEOLOGIC PROVINCE CODE	375	375	375
DEPTH, FEET	4735	2779	4642
WELLHEAD PRESSURE,PSIG	1480	1070	1495
OPEN FLOW, MCFD	4500	1000	10856
COMPONENT, MOLE PCT			
METHANE	80.2	78.1	92.1
ETHANE	5.8	3.0	3.9
PROPANE	2.9	1.4	1.4
N-BUTANE	1.0	0.5	0.5
ISOBUTANE	0.4	0.1	0.2
N-PENTANE	0.3	0.3	0.2
ISOPENTANE	0.3	0.0	0.2
CYCLOPENTANE	0.1	0.1	0.1
HEXANES PLUS	0.2	0.2	0.1
NITROGEN	8.5	15.7	1.2
OXYGEN	TRACE	0.1	0.0
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.1	0.1
HELIUM	0.30	0.42	0.08
HEATING VALUE*	1078	928	1089
SPECIFIC GRAVITY	0.687	0.670	0.616

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 118 SAMPLE 17875	INDEX 119 SAMPLE 17851	INDEX 120 SAMPLE 17656
STATE	KANSAS	KANSAS	KANSAS
COUNTY	BARTON	CLARK	CLARK
FIELD	WILDCAT	BIG SAND CREEK	HARPER RANCH N
WELL NAME	MILLER NO. 1	EUBANK NO. 9-B	MCGEE NO. 1
LOCATION	SEC. 28, T19S, R14W	SEC. 9, T34S, R23W	SEC. 34, T32S, R21W
OWNER	ROXANA CORP.	COBRA OIL & GAS CORP.	MIDCO EXPLORATION, INC.
COMPLETED	03/21/85	05/24/85	12/12/84
SAMPLED	--/--/00	09/30/85	04/--/85
FORMATION	PERM-RED EAGLE	MISS-CHESTER	PENN-MORROW
GEOLOGIC PROVINCE CODE	385	360	360
DEPTH, FEET	2276	5436	5254
WELLHEAD PRESSURE,PSIG	650	1100	NOT GIVEN
OPEN FLOW, MCFD	1200	1500	4000
COMPONENT, MOLE PCT			
METHANE	66.5	79.5	86.1
ETHANE	2.3	6.0	4.5
PROPANE	0.8	3.6	2.2
N-BUTANE	0.5	1.3	0.8
ISOBUTANE	0.2	0.6	0.5
N-PENTANE	0.3	0.4	0.3
ISOPENTANE	TRACE	0.4	0.3
CYCLOPENTANE	0.2	0.1	0.1
HEXANES PLUS	0.4	0.3	0.3
NITROGEN	27.5	7.5	4.3
OXYGEN	0.0	0.0	0.2
ARGON	0.1	TRACE	TRACE
HYDROGEN	0.0	TRACE	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.2	0.1	0.2
HELIUM	1.18	0.24	0.14
HEATING VALUE*	800	1124	1098
SPECIFIC GRAVITY	0.716	0.705	0.659

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 121 SAMPLE 17682	INDEX 122 SAMPLE 16806	INDEX 123 SAMPLE 17579
STATE	KANSAS	KANSAS	KANSAS
COUNTY	CLARK	CLARK	HARPER
FIELD	NOT GIVEN	SNAKE CREEK	CRYSTAL SPRINGS SE
WELL NAME	ESPLUND NO. 1	BARBY NO. 2-21	WILLIAMS NO. 1
LOCATION	SEC. 35, T30S, R25W	SEC. 21, T34S, R21W	SEC. 32, T32S, R7W
OWNER	LADD PETROLEUM CORP.	RINE DRILLING CO.	ATTICA GAS VENTURE CORP.
COMPLETED	--/--/00	--/--/00	--/--/00
SAMPLED	05/21/85	03/17/83	--/--/00
FORMATION	PENN-& MISS	PENN-MORROW	MISS-NOT GIVEN
GEOLOGIC PROVINCE CODE	360	360	375
DEPTH, FEET	5413	NOT GIVEN	4397
WELLHEAD PRESSURE,PSIG	1050	265	NOT GIVEN
OPEN FLOW, MCFD	8000	150	100
COMPONENT, MOLE PCT			
METHANE	70.1	88.1	83.9
ETHANE	5.1	4.3	6.1
PROPANE	2.7	2.3	2.7
N-BUTANE	1.0	0.8	0.9
ISOBUTANE	0.3	0.5	0.4
N-PENTANE	0.2	0.2	0.3
ISOPENTANE	0.3	0.4	0.2
CYCLOPENTANE	TRACE	0.1	0.1
HEXANES PLUS	0.2	0.2	0.3
NITROGEN	19.3	2.5	4.3
OXYGEN	0.2	TRACE	0.2
ARGON	TRACE	TRACE	0.1
HYDROGEN	0.1	0.2	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.2	0.4
HELIUM	0.33	0.13	0.21
HEATING VALUE*	947	1113	1114
SPECIFIC GRAVITY	0.720	0.647	0.674

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 124 SAMPLE 17522	INDEX 125 SAMPLE 17730	INDEX 126 SAMPLE 17749
STATE	KANSAS	KANSAS	KANSAS
COUNTY	HARPER	HASKELL	KIOWA
FIELD	WILDCAT	LEMON	NICHOLS "20"
WELL NAME	TRUBY NO. 1	W. M. WILSON "A" NO. 1	HARPER E NO. 1
LOCATION	SEC. 17, T33S, R6W	SEC. 30, T30S, R33W	SEC. 20, T29S, R18W
OWNER	REACH GROUP	AMOCO PRODUCTION CO.	TXO PRODUCTION CO.
COMPLETED	04/29/81	03/29/84	03/18/85
SAMPLED	11/09/84	07/01/85	07/09/85
FORMATION	PERM-INDIAN CAVE	PENN-DES MOINES	PENN-LANSING
GEOLOGIC PROVINCE CODE	375	360	360
DEPTH, FEET	2170	5112	4360
WELLHEAD PRESSURE, PSIG	NOT GIVEN	1250	1050
OPEN FLOW, MCFD	NOT GIVEN	2600	1500
COMPONENT, MOLE PCT			
METHANE	50.3	82.5	71.9
ETHANE	0.9	4.6	3.6
PROPANE	0.3	2.4	2.3
N-BUTANE	0.1	1.0	0.9
ISOBUTANE	TRACE	0.5	0.6
N-PENTANE	TRACE	0.3	0.2
ISOPENTANE	TRACE	0.4	0.3
CYCLOPENTANE	TRACE	0.2	0.2
HEXANES PLUS	TRACE	0.5	0.3
NITROGEN	47.1	6.7	19.1
OXYGEN	TRACE	0.1	TRACE
ARGON	0.2	0.0	TRACE
HYDROGEN	TRACE	TRACE	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.2	0.2
HELIUM	0.89	0.55	0.38
HEATING VALUE*	537	1094	947
SPECIFIC GRAVITY	0.756	0.681	0.718

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 127 SAMPLE 17905	INDEX 128 SAMPLE 17822	INDEX 129 SAMPLE 17631
STATE	KANSAS	KANSAS	KANSAS
COUNTY	MORTON	MORTON	PRATT
FIELD	BEAUCHAMP S	RICHFIELD	TATLOCK EXTENSION E
WELL NAME	BURSON-HUTCH NO. 2-5	GOING NO. B-1	KELL NO. 1
LOCATION	SEC. 5, T31S, R41W	SEC. 35, T32S, R41W	SEC. 35, T26S, R15W
OWNER	MUSTANG DRILLING & EXPL., IN	ANADARKO PETROLEUM CORP.	ZENITH DRILLING CORP.
COMPLETED	07/14/85	12/01/84	10/22/84
SAMPLED	11/03/85	08/28/85	03/27/85
FORMATION	PENN-MORROW	PENN-LANSING	MISS-KINDERHOOK
GEOLOGIC PROVINCE CODE	360	360	385
DEPTH, FEET	5364	3464	4408
WELLHEAD PRESSURE,PSIG	1180	563	966
OPEN FLOW, MCFD	2000	1500	8000
COMPONENT, MOLE PCT			
METHANE	76.6	62.4	83.2
ETHANE	3.8	5.5	4.2
PROPANE	2.3	1.6	1.7
N-BUTANE	1.1	0.3	0.5
ISOBUTANE	0.3	0.1	0.2
N-PENTANE	0.8	0.1	0.2
ISOPENTANE	0.2	0.1	TRACE
CYCLOPENTANE	0.1	0.1	0.1
HEXANES PLUS	0.6	0.1	0.2
NITROGEN	13.0	28.9	8.2
OXYGEN	TRACE	0.1	0.1
ARGON	TRACE	0.1	TRACE
HYDROGEN	TRACE	TRACE	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.3	0.1	0.2
HELIUM	0.88	0.55	0.98
HEATING VALUE*	1028	803	1008
SPECIFIC GRAVITY	0.706	0.731	0.645

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H_2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 130 SAMPLE 17654	INDEX 131 SAMPLE 17652	INDEX 132 SAMPLE 17676
STATE	KANSAS	KANSAS	KANSAS
COUNTY	RUSH	RUSH	SEDGWICK
FIELD	FICKEN EXTENSION	REICHEL W	BARTHOLOMEW
WELL NAME	WILSON "A" NO. 1	HONDERICK "D" NO. 1	LENTZ NO. 1
LOCATION	SEC. 14, T17S, R18W	SEC. 12, T17S, R18W	SEC. 20, T27S, R4W
OWNER	FRONTIER OIL CO.	FRONTIER OIL CO.	MARTIN OIL PRODUCERS, INC.
COMPLETED	03/03/84	11/30/83	07/09/83
SAMPLED	04/24/85	04/24/85	05/16/85
FORMATION	PENN-CONGLOMERATE	PENN-CONGLOMERATE	MISS----
GEOLOGIC PROVINCE CODE	385	385	376
DEPTH, FEET	3678	3712	3716
WELLHEAD PRESSURE,PSIG	600	600	1179
OPEN FLOW, MCFD	40000	1300	3284
COMPONENT, MOLE PCT			
METHANE	76.5	76.7	70.6
ETHANE	3.6	3.7	6.6
PROPANE	1.4	1.5	3.4
N-BUTANE	0.5	0.5	1.2
ISOBUTANE	0.4	0.4	0.4
N-PENTANE	0.2	0.2	0.3
ISOPENTANE	0.1	0.1	0.3
CYCLOPENTANE	0.1	TRACE	0.1
HEXANES PLUS	0.2	0.2	0.3
NITROGEN	14.9	14.8	16.2
OXYGEN	TRACE	TRACE	0.1
ARGON	0.1	0.1	TRACE
HYDROGEN	0.0	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.1	0.1
HELIUM	1.74	1.72	0.54
HEATING VALUE*	933	936	1020
SPECIFIC GRAVITY	0.668	0.668	0.733

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 133 SAMPLE 17645	INDEX 134 SAMPLE 17923	INDEX 135 SAMPLE 17814
STATE	KANSAS	KANSAS	KANSAS
COUNTY	SEWARD	SEWARD	SEWARD
FIELD	ANG N	ARCHER N	SHUCK N
WELL NAME	B. H. LEMERT C NO. 1	PACKER NO. 7-1	HITCH "R" NO. 1
LOCATION	SEC. 27, T31S, R33W	SEC. 7, T34S, R34W	SEC. 28, T32S, R34W
OWNER	AMOCO PRODUCTION CO.	FLYNN ENERGY CORP.	CITIES SERVICE OIL & GAS COR
COMPLETED	04/28/84	08/19/85	06/28/85
SAMPLED	04/12/85	11/30/85	08/19/85
FORMATION	PENN-MARMATON	MISS-CHESTER LIME	MISS-CHESTER
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	4911	6072	6136
WELLHEAD PRESSURE,PSIG	706	1538	1588
OPEN FLOW, MCFD	956	3582	1489
COMPONENT, MOLE PCT			
METHANE	61.8	75.9	56.5
ETHANE	10.7	5.3	7.3
PROPANE	9.6	4.4	8.6
N-BUTANE	2.6	1.9	6.9
ISOBUTANE	1.2	0.6	3.3
N-PENTANE	0.5	1.1	4.3
ISOPENTANE	0.8	0.5	4.4
CYCLOPENTANE	0.2	0.4	0.9
HEXANES PLUS	0.4	1.2	4.6
NITROGEN	11.9	7.8	2.9
OXYGEN	0.1	TRACE	TRACE
ARGON	TRACE	0.0	0.0
HYDROGEN	0.0	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.4	0.2
HELIUM	0.12	0.20	0.07
HEATING VALUE*	1278	1207	1911
SPECIFIC GRAVITY	0.850	0.764	1.142

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 136 SAMPLE 17664	INDEX 137 SAMPLE 17902	INDEX 138 SAMPLE 17672
STATE	KANSAS	KENTUCKY	KENTUCKY
COUNTY	STEVENS	LESLIE	MUHLENBERG
FIELD	SKI SE	NOT GIVEN	BEVIER CONSOLIDATED EXT.
WELL NAME	BONSALL NO. A-2	HUBER NO. 1	DRAKE HEIRS NO. 1
LOCATION	SEC. 22, T34S, R35W	CARTER COORDINATES 22-GN-74E	CARTER COORDINATE 8-I-30
OWNER	CITIES SERVICE OIL & GAS COR	WISER OIL CO.	HAR-KEN OIL CO.
COMPLETED	10/24/84	06/20/82	06/07/84
SAMPLED	05/07/85	11/13/85	05/14/85
FORMATION	MISS-CHESTER	MISS-BIG LIME	PENN-SAND
GEOLOGIC PROVINCE CODE	360	160	315
DEPTH, FEET	6214	2820	1090
WELLHEAD PRESSURE,PSIG	1504	655	485
OPEN FLOW, MCFD	2420	1164	1828
COMPONENT, MOLE PCT			
METHANE	84.3	84.5	97.7
ETHANE	5.2	6.3	0.0
PROPANE	3.0	3.0	0.0
N-BUTANE	1.0	1.1	0.0
ISOBUTANE	0.4	0.1	0.0
N-PENTANE	0.4	0.5	0.0
ISOPENTANE	0.2	0.1	0.0
CYCLOPENTANE	0.1	0.1	0.0
HEXANES PLUS	0.3	0.4	0.0
NITROGEN	4.6	3.3	2.0
OXYGEN	TRACE	TRACE	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	TRACE	0.2	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.3	0.1	0.2
HELIUM	0.19	0.27	0.06
HEATING VALUE*	1117	1138	990
SPECIFIC GRAVITY	0.673	0.669	0.564

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 139 SAMPLE 17779	INDEX 140 SAMPLE 17620	INDEX 141 SAMPLE 17621
STATE	LOUISIANA	LOUISIANA	LOUISIANA
PARISH	ALLEN	BOSSIER	BOSSIER
FIELD	CASTOR CREEK	ELM GROVE	ELM GROVE
WELL NAME	HARVEY ADAMS ET AL NO. 1	VUA L.A. COWLEY NO. 2	L.A. COWLEY NO. 1
LOCATION	SEC. 16, T5S, R3W	SEC. 2, T16N, R13W	SEC. 2, T16N, R13W
OWNER	LGS EXPLORATION CO.	GRIGSBY PETROLEUM, INC.	GRIGSBY PETROLEUM, INC.
COMPLETED	12/13/82	12/14/84	09/10/84
SAMPLED	07/22/85	03/19/85	03/19/85
FORMATION	EOCE-OBERLIN	CRET-JETER	CRET-HOSSTON
GEOLOGIC PROVINCE CODE	220	230	230
DEPTH, FEET	9490	4689	5938
WELLHEAD PRESSURE,PSIG	NOT GIVEN	2300	2450
OPEN FLOW, MCFD	1998	950	2500
COMPONENT, MOLE PCT			
METHANE	83.7	92.9	95.8
ETHANE	7.6	4.1	2.2
PROPANE	3.7	1.1	0.2
N-BUTANE	1.0	0.3	0.1
ISOBUTANE	1.1	0.3	0.0
N-PENTANE	0.2	0.1	0.1
ISOPENTANE	0.8	TRACE	0.0
CYCLOPENTANE	0.2	TRACE	TRACE
HEXANES PLUS	0.6	0.2	0.1
NITROGEN	0.5	0.2	0.6
OXYGEN	TRACE	TRACE	0.0
ARGON	0.0	0.0	TRACE
HYDROGEN	TRACE	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.5	0.8	0.9
HELIUM	TRACE	0.01	0.02
HEATING VALUE*	1232	1078	1028
SPECIFIC GRAVITY	0.705	0.610	0.584

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 142 SAMPLE 17619	INDEX 143 SAMPLE 17918	INDEX 144 SAMPLE 16286
STATE	LOUISIANA	LOUISIANA	LOUISIANA
PARISH	CADDO	CALCASIEU	CAMERON
FIELD	ELM GROVE	NOT GIVEN	CAMERON CANAL
WELL NAME	L.A. COWLEY NO. 3	MAYO REALTY CO., INC. NO. 1	BLANCHE FREMEAUX NO. 1
LOCATION	SEC. L, T16N, R13W	SEC. 1, T11S, R9W	SEC. 25, T12S, R3W
OWNER	GRIGSBY PETROLEUM, INC.	KANEB ENERGY CO.	MOBIL OIL CORP.
COMPLETED	02/01/85	07/01/85	06/04/81
SAMPLED	03/19/85	11/25/85	06/22/81
FORMATION	CRET-HILL	MIOC-CRISTELLARIA	OLIG-SUB ALLIANCE
GEOLOGIC PROVINCE CODE	230	220	220
DEPTH, FEET	4597	10420	12455
WELLHEAD PRESSURE, PSIG	2300	4975	8000
OPEN FLOW, MCFD	900	2800	1200
COMPONENT, MOLE PCT			
METHANE	93.2	76.3	90.9
ETHANE	3.9	10.9	4.9
PROPANE	1.0	6.0	1.6
N-BUTANE	0.3	1.7	0.3
ISOBUTANE	0.3	2.2	0.9
N-PENTANE	0.1	0.6	0.1
ISOPENTANE	TRACE	0.6	0.1
CYCLOPENTANE	TRACE	0.2	TRACE
HEXANES PLUS	0.2	0.6	0.1
NITROGEN	0.2	0.1	0.4
OXYGEN	TRACE	TRACE	0.0
ARGON	0.0	0.0	TRACE
HYDROGEN	0.0	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.7	0.9	0.6
HELIUM	0.01	TRACE	TRACE
HEATING VALUE*	1075	1345	1104
SPECIFIC GRAVITY	0.607	0.779	0.626

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 145 SAMPLE 17580	INDEX 146 SAMPLE 17628	INDEX 147 SAMPLE 17668
STATE	LOUISIANA	LOUISIANA	LOUISIANA
PARISH	CAMERON	E. BATON ROUGE	IBERIA
FIELD	LAKE ARTHUR S	COMITE	BAYOU POSTILLION
WELL NAME	DIXIE RICE NO. 1	EISWORTH NO. 1	WILLIAMS INC. NO. 1
LOCATION	SEC. 3, T12S, R3W	SEC. 41, T6S, R2E	SEC. 13, T12S, R11E
OWNER	FORMAN PETROLEUM CORP.	AMAREX, INC.	GOODRICH OIL CO.
COMPLETED	05/26/83	10/09/82	10/18/83
SAMPLED	01/30/85	03/19/85	05/13/85
FORMATION	MIOC-ZWAN	CRET-TUSCALOOSA	OLIG-DISCORBIS 15
GEOLOGIC PROVINCE CODE	220	220	220
DEPTH, FEET	12337	18100	13691
WELLHEAD PRESSURE,PSIG	2100	10970	2700
OPEN FLOW, MCFD	1250	NOT GIVEN	2000
COMPONENT, MOLE PCT			
METHANE	88.8	85.3	95.6
ETHANE	5.4	5.9	2.2
PROPANE	2.2	1.7	0.4
N-BUTANE	0.6	0.4	0.2
ISOBUTANE	1.1	0.5	0.1
N-PENTANE	0.2	0.2	0.1
ISOPENTANE	0.2	0.1	TRACE
CYCLOPENTANE	0.1	0.1	TRACE
HEXANES PLUS	0.3	0.3	0.1
NITROGEN	0.4	0.6	0.6
OXYGEN	0.1	TRACE	TRACE
ARGON	TRACE	0.0	TRACE
HYDROGEN	0.0	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.6	5.0	0.7
HELIUM	TRACE	0.01	TRACE
HEATING VALUE*	1147	1076	1038
SPECIFIC GRAVITY	0.654	0.681	0.587

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 148 SAMPLE 17595	INDEX 149 SAMPLE 17545	INDEX 150 SAMPLE 17540
STATE	LOUISIANA	LOUISIANA	LOUISIANA
PARISH	IBERVILLE	JEFFERSON	JEFFERSON DAVIS
FIELD	BAYOU SORRELL NW	BAY DE CHENE	HATHAWAY
WELL NAME	BAIST NO. 1	S/L 1217 NO. 1	GLENN F. LITTERAL NO. 1
LOCATION	SEC. 87, T10S, R10E	SEC. 26, T19S, R24E	SEC. 9, T8S, R3W
OWNER	HOUSTON OILFIELDS CO.	SUPERIOR OIL CO.	TEE OPERATING CO.
COMPLETED	03/23/84	05/05/83	06/--/83
SAMPLED	02/20/85	12/17/84	12/11/84
FORMATION	OLIG-CIBICIDES HAZZARDI	-1900 RA SU	OLIG-FRIO
GEOLOGIC PROVINCE CODE	220	220	220
DEPTH, FEET	11824	1928	10351
WELLHEAD PRESSURE,PSIG	3500	805	1800
OPEN FLOW, MCFD	1425	539	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE	91.3	99.3	90.6
ETHANE	4.9	0.0	4.3
PROPANE	1.7	0.0	1.7
N-BUTANE	0.4	0.0	0.5
ISOBUTANE	0.5	0.0	0.9
N-PENTANE	0.1	0.0	0.2
ISOPENTANE	0.2	0.0	0.2
CYCLOPENTANE	TRACE	0.0	0.1
HEXANES PLUS	0.1	0.0	0.3
NITROGEN	0.4	0.5	0.6
OXYGEN	0.0	0.0	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.3	0.1	0.5
HELIUM	0.01	0.03	TRACE
HEATING VALUE*	1105	1006	1122
SPECIFIC GRAVITY	0.622	0.557	0.638

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 151 SAMPLE 17533	INDEX 152 SAMPLE 17564	INDEX 153 SAMPLE 17860
STATE	LOUISIANA	LOUISIANA	LOUISIANA
PARISH	LAFAYETTE	LAFAYETTE	LINCOLN
FIELD	MAURICE N	RIDGE W	CHOUDRANT
WELL NAME	PAUL DE CLOUT NO. 1	PRIDGEON MEAUX NO. 1	PIPES NO. 1
LOCATION	SEC. 24, T10S, R3E	SEC. 23, T10S, R2E	SEC. 27, T18N, R2W
OWNER	EXCHANGE OIL & GAS CORP.	MAY PETROLEUM, INC.	MCCONATHY PRODUCTION CO.
COMPLETED	12/03/84	02/27/84	03/--/84
SAMPLED	11/29/84	01/10/85	10/09/85
FORMATION	MIOC-MEXICANA	OLIG-MIOGYP	CRET-RA-SUC
GEOLOGIC PROVINCE CODE	220	220	230
DEPTH, FEET	15100	12160	6982
WELLHEAD PRESSURE, PSIG	10000	5300	2300
OPEN FLOW, MCFD	10	1103	3200
COMPONENT, MOLE PCT			
METHANE	85.4	91.9	96.4
ETHANE	6.4	4.5	0.4
PROPANE	3.2	1.5	0.1
N-BUTANE	0.8	0.4	0.0
ISOBUTANE	1.1	0.4	0.0
N-PENTANE	0.2	0.1	0.0
ISOPENTANE	0.3	0.2	0.0
CYCLOPENTANE	0.1	TRACE	0.0
HEXANES PLUS	0.3	0.1	0.0
NITROGEN	0.3	0.3	1.7
OXYGEN	TRACE	0.0	0.0
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	2.0	0.6	1.4
HELIUM	TRACE	TRACE	0.05
HEATING VALUE*	1167	1095	986
SPECIFIC GRAVITY	0.687	0.619	0.578

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 154 SAMPLE 17861	INDEX 155 SAMPLE 17568	INDEX 156 SAMPLE 17560
STATE	LOUISIANA	LOUISIANA	LOUISIANA
PARISH	LINCOLN	OFFSHORE-OCS	OFFSHORE-OCS
FIELD	CHOUDRANT	BLK. 10	CAMERON E
WELL NAME	LEWIS NO. 1	OCS-G-2892 NO. 2	OCS G-4777 NO. A-3
LOCATION	SEC. 28, T18N, R2W	EUGENE ISLAND AREA	EAST CAMERON 32
OWNER	MCCONATHY PRODUCTION CO.	TRANSCO EXPLORATION CO.	SONAT EXPLORATION CO.
COMPLETED	03/--/84	--/--/00	--/--/00
SAMPLED	10/09/85	01/11/85	01/05/85
FORMATION	JURA-RA-SUD	MIOC-NOT GIVEN	MIOC-NOT GIVEN
GEOLOGIC PROVINCE CODE	230	952	220
DEPTH, FEET	9614	15193	13298
WELLHEAD PRESSURE,PSIG	2600	10095	4337
OPEN FLOW, MCFD	700	27000	11280
COMPONENT, MOLE PCT			
METHANE	79.2	91.9	93.3
ETHANE	7.9	3.3	2.7
PROPANE	4.8	1.3	1.0
N-BUTANE	1.5	0.4	0.3
ISOBUTANE	1.3	0.4	0.4
N-PENTANE	0.5	0.2	0.1
ISOPENTANE	0.5	0.1	0.2
CYCLOPENTANE	0.1	0.1	0.1
HEXANES PLUS	0.6	0.4	0.2
NITROGEN	0.5	0.3	0.4
OXYGEN	0.1	TRACE	0.0
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	2.9	1.6	1.4
HELIUM	0.01	TRACE	TRACE
HEATING VALUE*	1240	1088	1070
SPECIFIC GRAVITY	0.750	0.630	0.617

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 157 SAMPLE 17520	INDEX 158 SAMPLE 17868	INDEX 159 SAMPLE 16773
STATE	LOUISIANA	LOUISIANA	LOUISIANA
PARISH	OFFSHORE-OCS	OFFSHORE-OCS	OFFSHORE-OCS
FIELD	CAMERON W, BLK. 197	CHANDELEUR	EUGENE ISLAND BLK. 322
WELL NAME	OCS-G-3972 NO. A-1	OCS-G-5470 NO. A-1	NO. A-2
LOCATION	NOT GIVEN	BLOCK 29-A	OCS-G-2606 EUGENE IS. BLK322
OWNER	CHEVRON U.S.A., INC.	TENNECO OIL CO.	AMOCO PRODUCTION CO. (USA)
COMPLETED	01/26/83	07/07/84	02/14/83
SAMPLED	10/04/84	10/06/85	02/14/83
FORMATION	PLEI-SAND	OLIG-M SAND	PLEI-ANG-B1
GEOLOGIC PROVINCE CODE	952	952	952
DEPTH, FEET	4970	5000	5998
WELLHEAD PRESSURE,PSIG	2425	1920	2100
OPEN FLOW, MCFD	38581	5400	5000
COMPONENT, MOLE PCT			
METHANE	99.6	98.3	99.2
ETHANE	0.1	1.0	0.1
PROPANE	TRACE	0.2	TRACE
N-BUTANE	0.0	0.0	0.0
ISOBUTANE	0.0	0.0	0.0
N-PENTANE	0.0	0.0	0.0
ISOPENTANE	0.0	0.0	0.0
CYCLOPENTANE	0.0	0.0	0.0
HEXANES PLUS	0.0	0.0	0.0
NITROGEN	0.2	0.3	0.1
OXYGEN	0.0	0.0	0.0
ARGON	TRACE	TRACE	0.0
HYDROGEN	0.0	TRACE	0.3
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.2	0.3
HELIUM	TRACE	TRACE	TRACE
HEATING VALUE*	1011	1019	1008
SPECIFIC GRAVITY	0.557	0.565	0.557

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 160 SAMPLE 17922	INDEX 161 SAMPLE 17615	INDEX 162 SAMPLE 16277
STATE	LOUISIANA	LOUISIANA	LOUISIANA
PARISH	OFFSHORE-OCS	OFFSHORE-OCS	OFFSHORE-OCS
FIELD	SOUTH MARSH ISLAND V BLK.274	TIMBALIER S BLK. 195	WEST DELTA BLK. 56
WELL NAME	OCS-G-4822 NO. A1	A-3	STATE LEASE 2550 NO. 2
LOCATION	NOT GIVEN	OCS-G-3593	NOT GIVEN
OWNER	TENNECO OIL CO.	GULF OIL CORP.	CONOCO, INC.
COMPLETED	02/16/85	08/--/81	02/01/81
SAMPLED	11/30/85	03/07/85	06/05/81
FORMATION	PLIO-HE SAND	PLIO-GSD. RESVR. "A"	PLEI-DT56-2
GEOLOGIC PROVINCE CODE	952	952	220
DEPTH, FEET	8534	9966	4145
WELLHEAD PRESSURE,PSIG	3000	2700	NOT GIVEN
OPEN FLOW, MCFD	9500	60000	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE	97.2	97.8	98.7
ETHANE	1.5	1.1	0.3
PROPANE	0.2	0.3	0.1
N-BUTANE	0.1	0.1	TRACE
ISOBUTANE	0.0	0.1	TRACE
N-PENTANE	TRACE	0.1	TRACE
ISOPENTANE	0.1	0.0	TRACE
CYCLOPENTANE	0.1	TRACE	0.1
HEXANES PLUS	TRACE	0.1	0.1
NITROGEN	0.5	0.4	0.5
OXYGEN	0.0	0.0	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	TRACE	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.4	0.2	0.1
HELIUM	TRACE	TRACE	TRACE
HEATING VALUE*	1028	1034	1017
SPECIFIC GRAVITY	0.576	0.575	0.564

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 163 SAMPLE 17573	INDEX 164 SAMPLE 17559	INDEX 165 SAMPLE 17711
STATE	LOUISIANA	LOUISIANA	LOUISIANA
PARISH	OUACHITA	OUACHITA	OUACHITA
FIELD	CADEVILLE	CHENIERE CREEK	CHENIERE CREEK
WELL NAME	J. Y. HEAD NO. 1	MC HENRY ESTATE NO. 1	THOMPSON NO. 1
LOCATION	SEC. 32, T17N, R2E	SEC. 2, T16N, R3E	SEC. 7, T16N, R3E
OWNER	FRANKS PETROLEUM, INC.	HARVEY BROYLES	L. R. RESOURCES
COMPLETED	01/31/84	--/--/00	09/09/83
SAMPLED	05/10/85	01/06/85	06/--/85
FORMATION	CRET-JAMES	NOT GIVEN	CRET-HOSSTON E2-RES B
GEOLOGIC PROVINCE CODE	230	230	230
DEPTH, FEET	5618	NOT GIVEN	9249
WELLHEAD PRESSURE,PSIG	2800	NOT GIVEN	2200
OPEN FLOW, MCFD	5000	250	1000
COMPONENT, MOLE PCT			
METHANE	90.0	92.4	91.2
ETHANE	1.2	0.6	2.1
PROPANE	0.3	0.1	0.5
N-BUTANE	0.2	0.1	0.2
ISOBUTANE	TRACE	TRACE	0.2
N-PENTANE	0.1	TRACE	0.3
ISOPENTANE	0.1	TRACE	0.0
CYCLOPENTANE	TRACE	TRACE	0.1
HEXANES PLUS	0.1	0.1	0.6
NITROGEN	7.1	4.4	2.5
OXYGEN	TRACE	TRACE	TRACE
ARGON	TRACE	TRACE	0.1
HYDROGEN	0.0	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.8	2.1	2.2
HELIUM	0.02	0.09	0.03
HEATING VALUE*	961	958	1035
SPECIFIC GRAVITY	0.609	0.600	0.631

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 166 SAMPLE 17588	INDEX 167 SAMPLE 17891	INDEX 168 SAMPLE 17696
STATE	LOUISIANA	LOUISIANA	LOUISIANA
PARISH	POINTE COUPEE	RED RIVER	RICHLAND
FIELD	MORGANZA	MARTIN	SACKSONIA
WELL NAME	REX CALLICOTT NO. 2	J. D. HUCKABY NO. 1	PATRICK NO. 1
LOCATION	SEC. 84, T4S, R8E	SEC. 1, T13N, R9W	SEC. 4, T17N, R8E
OWNER	AMOCO PRODUCTION CO.	AMERADA HESS CORP.	SPIRIT PETROLEUM CO.
COMPLETED	08/30/83	06/04/85	12/22/83
SAMPLED	02/07/85	11/--/85	05/31/85
FORMATION	CRET-TUSCALOOSA	JURA-COTTON VALLEY L	CRET-RODESSA
GEOLOGIC PROVINCE CODE	220	230	230
DEPTH, FEET	18946	11254	2784
WELLHEAD PRESSURE,PSIG	8850	6000	1240
OPEN FLOW, MCFD	25000	4000	300
COMPONENT, MOLE PCT			
METHANE	90.8	94.5	93.3
ETHANE	2.3	0.2	0.2
PROPANE	0.3	0.1	0.1
N-BUTANE	0.1	0.0	0.0
ISOBUTANE	0.1	0.0	0.0
N-PENTANE	0.1	0.0	0.0
ISOPENTANE	0.0	0.0	0.0
CYCLOPENTANE	0.1	0.0	0.0
HEXANES PLUS	0.2	0.0	0.0
NITROGEN	0.2	0.3	5.9
OXYGEN	TRACE	0.1	0.0
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	TRACE	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	5.7	4.7	0.4
HELIUM	0.01	TRACE	0.09
HEATING VALUE*	994	963	951
SPECIFIC GRAVITY	0.636	0.603	0.584

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 159 SAMPLE 17560	INDEX 170 SAMPLE 17617	INDEX 171 SAMPLE 17606
STATE	LOUISIANA	LOUISIANA	LOUISIANA
PARISH	ST. JAMES	ST. MARTIN	TERREBONNE
FIELD	VACHERIE	LAKE MARTIN	BAYOU PIQUANT
WELL NAME	ST. JOSEPH PLT & MFG NO. 1	BALDWIN LUMBER CO. FEE NO. 1	CONT. LAND & FUR CO. NO.1
LOCATION	SEC. 52, T13S, R17E	SEC. 3, T10S, R5E	SEC. 36, T18S, R14E
OWNER	REPUBLIC MINERAL CORP.	TEXACO U.S.A.	SANTA FE MINERALS, INC.
COMPLETED	04/09/83	12/18/84	03/29/84
SAMPLED	05/01/85	03/04/85	03/06/85
FORMATION	OLIG-MARGINULINA	OLIG-MARGINULINA TEXANA	MIOC-TEXTULARIA W-4
GEOLOGIC PROVINCE CODE	220	220	230
DEPTH, FEET	10742	12700	13036
WELLHEAD PRESSURE,PSIG	NOT GIVEN	8400	8134
OPEN FLOW, MCFD	4207	1750	10000
COMPONENT, MOLE PCT			
METHANE	91.1	85.2	97.2
ETHANE	3.0	7.7	1.2
PROPANE	1.6	3.8	0.2
N-BUTANE	0.6	0.8	0.1
ISOBUTANE	0.9	1.0	0.1
N-PENTANE	0.4	0.2	TRACE
ISOPENTANE	0.2	0.3	TRACE
CYCLOPENTANE	0.4	TRACE	TRACE
HEXANES PLUS	1.0	0.2	0.1
NITROGEN	0.5	0.3	0.6
OXYGEN	0.0	0.0	0.1
ARGON	0.0	TRACE	TRACE
HYDROGEN	0.0	TRACE	0.2
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.3	0.4	0.3
HELIUM	TRACE	TRACE	TRACE
HEATING VALUE*	1161	1192	1024
SPECIFIC GRAVITY	0.655	0.677	0.573

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 172 SAMPLE 17566	INDEX 173 SAMPLE 17634	INDEX 174 SAMPLE 17594
STATE	LOUISIANA	LOUISIANA	LOUISIANA
PARISH	TERREBONNE	UNION	VERMILION
FIELD	HUMPHREYS	NOT GIVEN	FLORENCE S
WELL NAME	JOSEPH BLANCHARD NO. 1	HAMONS A NO.1	E. M. WATKINS NO. 39
LOCATION	SEC. 42, T17S, R16E	SEC. 27, T19N, R2E	SEC. 25, T13S, R2W
OWNER	PENNZOIL PRODUCING CO.	CITIES SERVICE OIL & GAS COR	AMOCO PRODUCTION CO.
COMPLETED	06/06/83	--/--/00	01/29/85
SAMPLED	01/14/84	--/--/00	02/15/85
FORMATION	MIOC-FF RA SUA	NOT GIVEN	MIOC-P-3 SAND
GEOLOGIC PROVINCE CODE	220	230	220
DEPTH, FEET	12520	11942	10978
WELLHEAD PRESSURE,PSIG	7900	1915	4200
OPEN FLOW, MCFD	11776	2804	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE	91.7	91.7	94.9
ETHANE	3.4	4.4	2.5
PROPANE	1.3	1.4	0.8
N-BUTANE	0.3	0.5	0.2
ISOBUTANE	0.5	0.6	0.3
N-PENTANE	0.1	0.3	0.1
ISOPENTANE	0.3	0.1	0.1
CYCLOPENTANE	0.3	TRACE	TRACE
HEXANES PLUS	0.8	0.2	0.2
NITROGEN	0.5	0.6	0.3
OXYGEN	0.1	TRACE	0.0
ARGON	0.0	TRACE	TRACE
HYDROGEN	0.0	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.6	0.1	0.8
HELIUM	TRACE	0.02	TRACE
HEATING VALUE*	1120	1108	1063
SPECIFIC GRAVITY	0.637	0.622	0.601

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 175 SAMPLE 17698	INDEX 176 SAMPLE 17633	INDEX 177 SAMPLE 17639
STATE	LOUISIANA	LOUISIANA	MICHIGAN
PARISH	VERMILION	WINN	CALHOUN
FIELD	OUTSIDE ISLAND	NOT GIVEN	CONVIS
WELL NAME	AMOS BROUSSARD NO. 1	CON CAN NO. A-1	J.R. WALTERS ET AL NO.1-12
LOCATION	SEC. 1, T14S, R1W	SEC. 24, T13N, R4W	SEC. 12, T1S, R6W
OWNER	EXPLORATION CO. OF LA.	CLEMENTS ENERGY, INC.	SMITH PETROLEUM CO.
COMPLETED	08/17/83	--/--/00	10/08/82
SAMPLED	--/--/00	03/29/85	03/25/85
FORMATION	MIOC-PLANULINA	JURA-COTTON VALLEY	SILU-NIAGARAN
GEOLOGIC PROVINCE CODE	220	230	305
DEPTH, FEET	12040	13640	3124
WELLHEAD PRESSURE,PSIG	NOT GIVEN	9200	50
OPEN FLOW, MCFD	NOT GIVEN	600	30
COMPONENT, MOLE PCT			
METHANE	89.7	99.5	65.9
ETHANE	4.8	0.1	16.3
PROPANE	1.9	TRACE	7.8
N-BUTANE	0.6	0.0	1.9
ISOBUTANE	0.6	0.0	2.3
N-PENTANE	0.4	0.0	0.6
ISOPENTANE	0.1	0.0	0.6
CYCLOPENTANE	0.2	0.0	0.1
HEXANES PLUS	0.7	0.0	0.5
NITROGEN	0.3	0.2	3.9
OXYGEN	0.0	TRACE	TRACE
ARGON	0.0	0.0	TRACE
HYDROGEN	TRACE	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.7	TRACE	0.1
HELIUM	TRACE	0.01	0.05
HEATING VALUE*	1149	1010	1384
SPECIFIC GRAVITY	0.654	0.555	0.831

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 178 SAMPLE 17919	INDEX 179 SAMPLE 17753	INDEX 180 SAMPLE 17750
STATE	MICHIGAN	MICHIGAN	MISSISSIPPI
COUNTY	GLADWIN	INGHAM	CHICKASAW
FIELD	NOT GIVEN	ONANDAGA	SUGAR RUN
WELL NAME	LETTS UNIT NO. 2-36	NORMAN D. REESE NO. 6-2	FRANKLIN ELLIS NO. 1
LOCATION	SEC. 36, T18N, R1W	SEC. 16, T1N, R2W	SEC. 15, T12S, R5E
OWNER	AMOCO PRODUCTION CO.	MOBIL OIL CORP.	LOUISIANA LAND & EXPL. CO.
COMPLETED	11/29/84	06/04/84	--/--/00
SAMPLED	11/27/85	07/12/85	07/09/85
FORMATION	ORDO-PRAIRIE DU CHIEN	DEVO-TRAVERSE	MISS-CARTER
GEOLOGIC PROVINCE CODE	305	305	200
DEPTH, FEET	11218	2056	2741
WELLHEAD PRESSURE, PSIG	4400	250	700
OPEN FLOW, MCFD	9119	250	350
COMPONENT, MOLE PCT			
METHANE	90.9	72.1	97.8
ETHANE	3.4	7.9	0.1
PROPANE	1.1	4.1	TRACE
N-BUTANE	0.5	1.1	0.0
ISOBUTANE	0.3	0.3	0.0
N-PENTANE	0.3	0.2	0.0
ISOPENTANE	0.1	0.2	0.0
CYCLOPENTANE	TRACE	0.1	0.0
HEXANES PLUS	0.3	0.1	0.0
NITROGEN	2.9	13.4	1.9
OXYGEN	TRACE	TRACE	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	0.1	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.2	TRACE	TRACE
HELIUM	0.04	0.30	0.11
HEATING VALUE*	1070	1052	993
SPECIFIC GRAVITY	0.623	0.721	0.562

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 181 SAMPLE 17022	INDEX 182 SAMPLE 17576	INDEX 183 SAMPLE 17687
STATE	MISSISSIPPI	MISSISSIPPI	MISSISSIPPI
COUNTY	HANCOCK	HINDS	JEFFERSON DAVIS
FIELD	CATAHOULA CREEK	NEWMAN	HOLIDAY CREEK
WELL NAME	GORDON BROWN NO. 1	TOMPKINS NO. 1	DUMAS-BURKETT NO. 1
LOCATION	SEC. 29, T6S, R15W	SEC. 33, T15N, R5E	SEC. 13, T6N, R18W
OWNER	HUNT ENERGY CORP.	INDREX INC.	INEXCO OIL CO.
COMPLETED	12/01/82	11/--/83	--/--/00
SAMPLED	08/12/83	01/28/85	05/28/85
FORMATION	JURA-COTTON VALLEY U	JURA-COTTON VALLEY	CRET-HOSSTON
GEOLOGIC PROVINCE CODE	210	210	210
DEPTH, FEET	19702	17742	16338
WELLHEAD PRESSURE,PSIG	318	6666	2800
OPEN FLOW, MCFD	1099	4650	1700
COMPONENT, MOLE PCT			
METHANE	92.7	83.7	92.8
ETHANE	0.1	1.0	0.5
PROPANE	TRACE	0.2	0.2
N-BUTANE	0.0	0.1	0.2
ISOBUTANE	0.0	0.1	TRACE
N-PENTANE	0.0	0.1	0.2
ISOPENTANE	0.0	TRACE	0.0
CYCLOPENTANE	0.0	TRACE	0.1
HEXANES PLUS	0.0	0.1	0.3
NITROGEN	2.1	5.3	1.8
OXYGEN	0.2	TRACE	0.0
ARGON	0.1	TRACE	TRACE
HYDROGEN	0.3	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	4.6	9.4	3.8
HELIUM	0.02	0.04	0.03
HEATING VALUE*	942	887	989
SPECIFIC GRAVITY	0.609	0.682	0.619

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 184 SAMPLE 17565	INDEX 185 SAMPLE 17843	INDEX 186 SAMPLE 17841
STATE	MISSISSIPPI	MISSISSIPPI	MISSISSIPPI
COUNTY	JEFFERSON DAVIS	LOWNDES	MONROE
FIELD	VINTAGE	MAPLE BRANCH S	GOODWIN
WELL NAME	RIPPLE NO. 1	SIZEMORE NO. 28-11	HESTER NO. 27-9
LOCATION	SEC. 8, T6N, R18W	SEC. 28, T16S, R17W	SEC. 27, T11S, R7E
OWNER	LYONS PETROLEUM CO.	PRUET PRODUCTION CO.	PRUET PRODUCTION CO.
COMPLETED	--/--/83	10/06/83	07/28/85
SAMPLED	05/10/85	09/24/85	09/24/85
FORMATION	NOT GIVEN	MISS-LEWIS	MISS-EVANS
GEOLOGIC PROVINCE CODE	210	200	200
DEPTH, FEET	16592	5353	1770
WELLHEAD PRESSURE,PSIG	4500	600	830
OPEN FLOW, MCFD	1900	1081	920
COMPONENT, MOLE PCT			
METHANE	92.6	80.6	96.3
ETHANE	0.2	10.1	0.4
PROPANE	0.1	4.6	0.0
N-BUTANE	0.1	1.5	0.6
ISOBUTANE	0.0	0.5	0.0
N-PENTANE	0.1	0.4	0.1
ISOPENTANE	0.0	0.4	0.3
CYCLOPENTANE	TRACE	0.2	0.1
HEXANES PLUS	0.1	0.4	0.2
NITROGEN	2.1	1.2	1.6
OXYGEN	0.2	TRACE	0.1
ARGON	TRACE	0.0	TRACE
HYDROGEN	TRACE	TRACE	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	4.5	0.1	0.2
HELIUM	0.03	0.09	0.05
HEATING VALUE*	957	1246	1034
SPECIFIC GRAVITY	0.616	0.716	0.589

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 187 SAMPLE 17219	INDEX 188 SAMPLE 17220	INDEX 189 SAMPLE 17222
STATE	MISSISSIPPI	MISSISSIPPI	MISSISSIPPI
COUNTY	MONROE	MONROE	MONROE
FIELD	HAMILTON S	MAPLE BRANCH	MCKINLEY CREEK
WELL NAME	TAYLOR NO. 35-13	WELLS NO. 5-5	ROBINSON NO. 19-15
LOCATION	NOT GIVEN	NOT GIVEN	SEC. 19, T15S, R18W
OWNER	DOUGLAS EXPLORATION CO., INC	DOUGLAS EXPLORATION CO., INC	DOUGLAS EXPLORATION CO., INC
COMPLETED	12/16/83	12/16/83	08/20/83
SAMPLED	03/21/84	03/21/84	03/22/84
FORMATION	MISS-LEWIS	MISS-LEWIS	MISS-LEWIS
GEOLOGIC PROVINCE CODE	200	200	200
DEPTH, FEET	5326	5236	5304
WELLHEAD PRESSURE, PSIG	40	20	1850
OPEN FLOW, MCFD	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE	70.9	77.8	87.4
ETHANE	12.8	10.7	6.4
PROPANE	7.6	5.5	2.3
N-BUTANE	2.9	1.7	0.8
ISOBUTANE	1.4	0.8	0.6
N-PENTANE	0.9	0.6	0.3
ISOPENTANE	1.4	0.8	0.5
CYCLOPENTANE	0.5	0.4	0.3
HEXANES PLUS	0.8	0.6	0.4
NITROGEN	0.6	0.8	0.6
OXYGEN	TRACE	TRACE	TRACE
ARGON	0.0	0.0	0.0
HYDROGEN	0.0	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	TRACE	0.1	0.2
HELIUM	0.05	0.08	0.08
HEATING VALUE*	1448	1312	1173
SPECIFIC GRAVITY	0.834	0.753	0.665

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 190 SAMPLE 17774	INDEX 191 SAMPLE 17775	INDEX 192 SAMPLE 16565
STATE	MISSISSIPPI	MISSISSIPPI	MISSISSIPPI
COUNTY	PONTOTOC	PONTOTOC	RANKIN
FIELD	GOODFOOD E	TROY	HOLLYBUSH CREEK
WELL NAME	D. L. ABERNATHY 26-13 NO. 1	J. R. FALKNER 28-2 NO. 2	MCKAY NO. 2
LOCATION	SEC. 26, TL, R4E	NOT GIVEN	SEC. 29, T7N, R5E
OWNER	LOUISIANA LAND & EXPL. CO.	LOUISIANA LAND & EXPL. CO.	SHELL OIL CO.
COMPLETED	--/--/00	--/--/00	06/29/82
SAMPLED	07/17/85	07/17/85	06/28/82
FORMATION	NOT -ABERNATHY	MISS-LEWIS	JURA-BUCKNER
GEOLOGIC PROVINCE CODE	200	200	210
DEPTH, FEET	1861	2450	14700
WELLHEAD PRESSURE,PSIG	850	650	2200
OPEN FLOW, MCFD	650	500	10000
COMPONENT, MOLE PCT			
METHANE	98.3	97.9	0.3
ETHANE	0.1	0.2	TRACE
PROPANE	TRACE	0.1	0.0
N-BUTANE	0.0	0.0	0.0
ISOBUTANE	0.0	0.0	0.0
N-PENTANE	0.0	0.0	0.0
ISOPENTANE	0.0	0.0	0.0
CYCLOPENTANE	0.0	0.0	0.0
HEXANES PLUS	0.0	0.0	0.0
NITROGEN	1.4	1.5	0.2
OXYGEN	TRACE	0.1	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	TRACE	TRACE	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.1	99.4
HELIUM	0.09	0.08	0.01
HEATING VALUE*	998	998	3
SPECIFIC GRAVITY	0.561	0.564	1.523

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 193 SAMPLE 17589	INDEX 194 SAMPLE 17752	INDEX 195 SAMPLE 17640
STATE	MISSISSIPPI	MONTANA	MONTANA
COUNTY	SIMPSON	CARBON	GLACIER
FIELD	OAK GROVE	NOT GIVEN	BIG ROCK
WELL NAME	GEORGE MAGEE NO. 1	NEWTON NO. 1	JAMES BOY HEIRS NO.11-8
LOCATION	SEC. 27, T10N, R19W	SEC. 21, T4S, R23E	SEC. 8, T36N, R6W
OWNER	CALLON PETROLEUM CO.	YVC, INC.	MONTANA POWER CO.
COMPLETED	01/13/84	02/--/83	08/21/84
SAMPLED	02/13/85	07/08/85	04/02/85
FORMATION	CRET-WARE	CRET-BIG ELK	CRET-BLACK LEAF
GEOLOGIC PROVINCE CODE	210	520	500
DEPTH, FEET	14004	823	2035
WELLHEAD PRESSURE,PSIG	3200	200	170
OPEN FLOW, MCFD	8000	20	101
COMPONENT, MOLE PCT			
METHANE	92.1	83.1	82.9
ETHANE	0.6	0.1	3.1
PROPANE	0.3	TRACE	3.4
N-BUTANE	0.3	0.0	1.4
ISOBUTANE	0.3	0.0	0.7
N-PENTANE	0.5	0.0	0.3
ISOPENTANE	0.0	0.0	0.3
CYCLOPENTANE	0.2	0.0	0.1
HEXANES PLUS	1.0	0.0	0.2
NITROGEN	1.4	16.5	6.9
OXYGEN	0.1	0.1	0.1
ARGON	0.0	TRACE	TRACE
HYDROGEN	0.0	TRACE	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	3.2	0.2	0.1
HELIUM	0.03	0.01	0.35
HEATING VALUE*	1052	844	1094
SPECIFIC GRAVITY	0.645	0.625	0.682

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 196 SAMPLE 17878	INDEX 197 SAMPLE 17738	INDEX 198 SAMPLE 17886
STATE	MONTANA	MONTANA	NEBRASKA
COUNTY	GLACIER	PHILLIPS	CHEYENNE
FIELD	BIG ROCK	BOWDOIN DOME AREA	PEBBLE
WELL NAME	TRIBAL 355 NO. 10-11	WHITEWATER 2 FED. NO. 2451	HAWKINS NO. 1
LOCATION	SEC. 10, T37N, R7W	SEC. 24, T35N, R31E	SEC. 17, T12N, R51W
OWNER	MONTANA POWER CO.	MIDLANDS GAS CORP.	BERENERGY CORP.
COMPLETED	07/--/85	08/28/84	11/02/84
SAMPLED	10/22/85	07/02/85	10/30/85
FORMATION	CRET-BLACK LEAF	CRET-BOWDOIN	CRET-DAKOTA D
GEOLOGIC PROVINCE CODE	500	395	540
DEPTH, FEET	2197	1290	5054
WELLHEAD PRESSURE,PSIG	1232	351	420
OPEN FLOW, MCFD	300	520	2444
COMPONENT, MOLE PCT			
METHANE	76.7	92.9	78.2
ETHANE	7.9	0.3	5.3
PROPANE	6.4	0.1	5.7
N-BUTANE	2.5	0.0	2.1
ISOBUTANE	1.0	0.0	0.6
N-PENTANE	0.5	0.0	0.6
ISOPENTANE	0.6	0.0	0.4
CYCLOPENTANE	0.2	0.0	0.1
HEXANES PLUS	0.4	0.0	0.3
NITROGEN	3.2	6.4	5.1
OXYGEN	0.1	TRACE	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.1	TRACE	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.3	0.2	1.3
HELIUM	0.16	0.07	0.08
HEATING VALUE*	1278	949	1188
SPECIFIC GRAVITY	0.761	0.585	0.739

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 199 SAMPLE 17706	INDEX 200 SAMPLE 17171	INDEX 201 SAMPLE 17170
STATE	NEW MEXICO	NEW MEXICO	NEW MEXICO
COUNTY	CHAVES	CHAVES	CHAVES
FIELD	BITTER LAKES	LESLIE SPRING	PECOS SLOPE
WELL NAME	RUNYON STATE NO. 2	CHAVES "A" FEDERAL NO. 1-T	CHAVES "A" FEDERAL NO. 1-C
LOCATION	SEC. 24, T9S, R26E	SEC. 21, T7S, R26E	SEC. 21, T7S, R26E
OWNER	ELK OIL CO.	SUN EXPLORATION & PRODUCTION	SUN EXPLORATION & PRODUCTION
COMPLETED	01/22/83	06/--/82	06/--/82
SAMPLED	06/13/85	02/09/84	02/09/84
FORMATION	PERM-WOLFCAMP	PERM-WOLFCAMP	PERM-ABO
GEOLOGIC PROVINCE CODE	430	430	430
DEPTH, FEET	5142	4588	3932
WELLHEAD PRESSURE,PSIG	1145	754	831
OPEN FLOW, MCFD	1000	436	10474
COMPONENT, MOLE PCT			
METHANE	86.8	86.7	86.2
ETHANE	5.4	4.6	4.6
PROPANE	2.1	1.7	1.8
N-BUTANE	0.7	0.6	0.6
ISOBUTANE	0.4	0.4	0.4
N-PENTANE	0.3	0.3	0.2
ISOPENTANE	0.2	0.1	0.3
CYCLOPENTANE	0.1	0.1	0.1
HEXANES PLUS	0.3	0.3	0.4
NITROGEN	3.4	4.7	5.0
OXYGEN	TRACE	TRACE	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	TRACE	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.1	0.1
HELIUM	0.18	0.28	0.32
HEATING VALUE*	1108	1075	1082
SPECIFIC GRAVITY	0.652	0.645	0.652

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX .202 SAMPLE 17500	INDEX 203 SAMPLE 17667	INDEX 204 SAMPLE 16808
STATE	NEW MEXICO	NEW MEXICO	NEW MEXICO
COUNTY	CHAVES	CHAVES	CHAVES
FIELD	PECOS SLOPE	RED LAKE RIDGE	WILDCAT
WELL NAME	BRITT NO. 1	LYNX NO. 1	BITTERLAKES PX STATE NO. 1
LOCATION	SEC. 3, T11S, R25E	SEC. 19, T8S, R29E	SEC. 16, T10S, R25E
OWNER	WALLACE OIL & GAS, INC.	STEVENS OPERATING CORP.	YATES PETROLEUM CORP.
COMPLETED	--/--/00	07/16/84	10/--/82
SAMPLED	02/27/85	05/14/85	03/--/83
FORMATION	PERM-ABO	PERM-SAN ANDRES	PERM-ABO
GEOLOGIC PROVINCE CODE	430	430	430
DEPTH, FEET	3878	6852	3841
WELLHEAD PRESSURE,PSIG	987	2500	NOT GIVEN
OPEN FLOW, MCFD	1094	7075	1800
COMPONENT, MOLE PCT			
METHANE	81.8	70.2	68.4
ETHANE	4.3	11.9	3.7
PROPANE	1.8	6.6	1.5
N-BUTANE	0.6	2.2	0.5
ISOBUTANE	0.4	0.9	0.2
N-PENTANE	0.2	0.4	0.2
ISOPENTANE	0.1	0.9	0.3
CYCLOPENTANE	0.1	0.1	0.1
HEXANES PLUS	0.3	0.4	0.2
NITROGEN	9.3	4.2	17.6
OXYGEN	0.1	TRACE	3.0
ARGON	0.1	TRACE	0.2
HYDROGEN	TRACE	0.0	0.5
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	1.9	3.0
HELIUM	0.81	0.18	0.75
HEATING VALUE*	1018	1280	859
SPECIFIC GRAVITY	0.661	0.798	0.730

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 205 SAMPLE 16749	INDEX 206 SAMPLE 17558	INDEX 207 SAMPLE 17583
STATE	NEW MEXICO	NEW MEXICO	NEW MEXICO
COUNTY	EDDY	EDDY	EDDY
FIELD	BENSON	RED TANK-ATOKA	SAND DUNES
WELL NAME	BENSON DEEP UNIT NO. 2	SCL FED. NO. 2	TODD FED. 23 NO. 3
LOCATION	SEC. 34, T18S, R30E	SEC. 12, T22S, R31E	SEC. 23, T23S, R31E
OWNER	YATES PETROLEUM CORP.	POGO PRODUCING CO.	TEXAS AMERICAN OIL CORP.
COMPLETED	06/29/82	12/21/82	01/29/83
SAMPLED	01/10/83	12/27/84	02/06/85
FORMATION	PENN-MORROW	PENN-ATOKA	PENN-MORROW
GEOLOGIC PROVINCE CODE	430	430	430
DEPTH, FEET	11797	13646	14416
WELLHEAD PRESSURE,PSIG	3260	4200	2200
OPEN FLOW, MCFD	1090	1336	513
COMPONENT, MOLE PCT			
METHANE	82.4	92.8	96.4
ETHANE	8.4	2.9	1.2
PROPANE	3.5	0.8	0.1
N-BUTANE	1.0	0.3	0.1
ISOBUTANE	0.4	0.3	0.0
N-PENTANE	0.2	0.1	TRACE
ISOPENTANE	0.4	0.3	TRACE
CYCLOPENTANE	0.1	0.1	TRACE
HEXANES PLUS	0.1	0.4	0.1
NITROGEN	2.2	0.7	1.2
OXYGEN	0.4	0.0	0.1
ARGON	TRACE	0.0	TRACE
HYDROGEN	0.2	0.1	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.7	1.1	0.7
HELIUM	0.03	0.02	0.02
HEATING VALUE*	1158	1075	1009
SPECIFIC GRAVITY	0.685	0.618	0.577

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 208 SAMPLE 16158	INDEX 209 SAMPLE 16159	INDEX 210 SAMPLE 17888
STATE	NEW MEXICO	NEW MEXICO	NEW MEXICO
COUNTY	EDDY	EDDY	LEA
FIELD	WILDCAT	WILDCAT	PITCHFORK
WELL NAME	PARDUE FARMS "26" NO. 1	PARDUE FARMS 26 NO. 1	DIAMOND 6 FED. NO. 1
LOCATION	SEC. 26, T23S, R28E	SEC. 26, T23S, R28E	SEC. 6, T25S, R34E
OWNER	MADDOX ENERGY CORP.	MADDOX ENERGY CORP.	HNG OIL CO.
COMPLETED	--/--/00	--/--/00	11/08/82
SAMPLED	11/12/80	11/12/80	11/05/85
FORMATION	PENN-STRAWN U	PENN-STRAWN L	PENN-MORROW
GEOLOGIC PROVINCE CODE	430	430	430
DEPTH, FEET	11468	11758	15234
WELLHEAD PRESSURE,PSIG	NOT GIVEN	NOT GIVEN	3000
OPEN FLOW, MCFD	9600	10250	1600
COMPONENT, MOLE PCT			
METHANE	96.8	89.9	95.5
ETHANE	1.6	5.8	2.5
PROPANE	0.2	1.6	0.5
N-BUTANE	TRACE	0.4	0.1
ISOBUTANE	TRACE	0.3	0.0
N-PENTANE	TRACE	0.2	0.1
ISOPENTANE	TRACE	0.1	TRACE
CYCLOPENTANE	TRACE	TRACE	0.1
HEXANES PLUS	TRACE	0.2	0.1
NITROGEN	0.8	1.0	0.2
OXYGEN	TRACE	TRACE	0.0
ARGON	TRACE	TRACE	0.2
HYDROGEN	0.0	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.4	0.3	0.7
HELIUM	0.01	0.01	0.02
HEATING VALUE*	1014	1103	1042
SPECIFIC GRAVITY	0.570	0.626	0.589

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 211 SAMPLE 17889	INDEX 212 SAMPLE 17790	INDEX 213 SAMPLE 17549
STATE	NEW MEXICO	NEW MEXICO	NEW MEXICO
COUNTY	LEA	MCKINLEY	QUAY
FIELD	PITCHFORK	UNDESIGNATED	NOT GIVEN
WELL NAME	VACA 13 FED. NO. 1	LUDWICK NO. 1	T-4 CATTLE CO. NO. 1
LOCATION	SEC. 13, T25S, R33E	SEC. 7, T19N, R5W	SEC. 5, T10N, R27E
OWNER	HNG OIL CO.	JAMES L. LUDWICK	YATES PETROLEUM CO.
COMPLETED	02/22/84	05/08/84	--/--/00
SAMPLED	11/05/85	07/31/85	12/12/84
FORMATION	PENN-ATOKA	CRET-MESAVERDE	PENN-NOT GIVEN
GEOLOGIC PROVINCE CODE	430	580	435
DEPTH, FEET	14495	1844	7005
WELLHEAD PRESSURE,PSIG	1100	600	1450
OPEN FLOW, MCFD	730	450	1100
COMPONENT, MOLE PCT			
METHANE	93.8	86.4	68.3
ETHANE	3.2	6.3	11.2
PROPANE	0.6	1.2	5.3
N-BUTANE	0.2	0.1	1.3
ISOBUTANE	0.1	0.4	0.7
N-PENTANE	0.2	0.1	0.3
ISOPENTANE	0.0	TRACE	0.2
CYCLOPENTANE	0.1	TRACE	0.1
HEXANES PLUS	0.3	0.1	0.2
NITROGEN	1.0	5.2	11.6
OXYGEN	0.1	0.0	0.0
ARGON	TRACE	TRACE	TRACE
HYDROGEN	TRACE	TRACE	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.4	0.1	0.5
HELIUM	0.01	0.11	0.19
HEATING VALUE*	1061	1045	1133
SPECIFIC GRAVITY	0.602	0.632	0.761

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 214 SAMPLE 17508	INDEX 215 SAMPLE 17570	INDEX 216 SAMPLE 17627
STATE	NEW MEXICO	NEW MEXICO	NEW MEXICO
COUNTY	RIO ARRIBA	RIO ARRIBA	SAN JUAN
FIELD	BASIN DAKOTA-UNDES. GALLUP	BLANCO MESAVERDE	AZTEC
WELL NAME	ROSA UNIT NO. 87	JICARILLA CONTRACT NO.155-33	STATE COM NO. C-6
LOCATION	SEC. 12, T31N, R4W	SEC. 29, T26N, R5W	SEC. 32, T29N, R9W
OWNER	AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO.	TENNECO OIL EXPL. & PROD. CO
COMPLETED	12/09/82	08/29/84	--/--/00
SAMPLED	10/30/84	08/29/84	03/21/85
FORMATION	CRET-GALLUP	CRET-MESAVERDE	CRET-CHACRA
GEOLOGIC PROVINCE CODE	580	580	580
DEPTH, FEET	7056	5377	NOT GIVEN
WELLHEAD PRESSURE,PSIG	2670	740	350
OPEN FLOW, MCFD	2469	993	50
COMPONENT, MOLE PCT			
METHANE	96.0	78.8	87.0
ETHANE	0.1	10.3	7.1
PROPANE	TRACE	6.6	3.1
N-BUTANE	0.0	0.0	0.8
ISOBUTANE	0.0	2.6	0.6
N-PENTANE	0.0	0.3	0.2
ISOPENTANE	0.0	0.0	0.2
CYCLOPENTANE	0.0	0.1	0.1
HEXANES PLUS	0.0	0.2	0.3
NITROGEN	1.2	0.9	0.3
OXYGEN	0.3	0.1	TRACE
ARGON	TRACE	0.0	0.0
HYDROGEN	TRACE	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	2.3	0.0	0.3
HELIUM	TRACE	0.03	0.01
HEATING VALUE*	974	1268	1172
SPECIFIC GRAVITY	0.583	0.727	0.663

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 217 SAMPLE 17741	INDEX 218 SAMPLE 17740	INDEX 219 SAMPLE 17777
STATE	NEW MEXICO	NEW MEXICO	NEW MEXICO
COUNTY	SAN JUAN	SAN JUAN	SAN JUAN
FIELD	BASIN DAKOTA	BLANCO MESAVERDE	FULCHER-KUTZ
WELL NAME	GALLEGOS CANYON NO. 89-E	ABRAMS "K" NO. 1	COUNTRY CLUB NO. 1
LOCATION	SEC. 6, T27N, R12W	SEC. 26, T29N, R10W	SEC. 30, T30N, R12W
OWNER	AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO.	BURR, JOEL B., JR.
COMPLETED	03/09/85	03/26/85	11/23/82
SAMPLED	07/05/85	07/05/85	07/16/85
FORMATION	CRET-DAKOTA	CRET-MESAVERDE	CRET-FRUITLAND
GEOLOGIC PROVINCE CODE	580	580	580
DEPTH, FEET	5900	4000	1352
WELLHEAD PRESSURE,PSIG	510	980	450
OPEN FLOW, MCFD	1373	5363	400
COMPONENT, MOLE PCT			
METHANE	80.5	67.5	87.8
ETHANE	9.6	6.2	5.4
PROPANE	5.3	2.6	2.3
N-BUTANE	1.3	0.8	0.6
ISOBUTANE	0.9	0.3	0.4
N-PENTANE	0.3	0.3	0.2
ISOPENTANE	0.4	0.3	0.3
CYCLOPENTANE	0.1	0.1	0.1
HEXANES PLUS	0.2	0.3	0.3
NITROGEN	1.1	18.5	2.4
OXYGEN	0.1	2.4	TRACE
ARGON	TRACE	0.1	TRACE
HYDROGEN	TRACE	0.4	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.3	0.2	0.1
HELIUM	0.02	0.04	0.01
HEATING VALUE*	1243	945	1120
SPECIFIC GRAVITY	0.717	0.739	0.649

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 220 SAMPLE 17862	INDEX 221 SAMPLE 17638	INDEX 222 SAMPLE 17786
STATE	NEW MEXICO	NEW MEXICO	NEW MEXICO
COUNTY	SAN JUAN	SAN JUAN	SAN JUAN
FIELD	KUTZ	MOUNT NEBO	MOUNT NEBO
WELL NAME	GALLEGOS CANYON UNIT NO. 361	PAYNE NO.6	LEEPER GAS COM-D NO. 1-R
LOCATION	SEC. 15, T28N, R12W	SEC. 20, T32N, R10W	AWX. 4, T32N, R10W
OWNER	BHP PETROLEUM AMERICAS, INC.	UNION TEXAS PETROLEUM CORP.	AMOCO PRODUCTION CO.
COMPLETED	07/29/85	08/11/84	10/12/84
SAMPLED	10/11/85	03/29/85	07/25/85
FORMATION	CRET-FRUITLAND	CRET-CEDAR HILL	CRET-FRUITLAND
GEOLOGIC PROVINCE CODE	580	580	580
DEPTH, FEET	1200	3120	2608
WELLHEAD PRESSURE,PSIG	480	134	1020
OPEN FLOW, MCFD	2639	140	479
COMPONENT, MOLE PCT			
METHANE	86.4	94.2	92.4
ETHANE	7.0	0.2	0.2
PROPANE	2.9	TRACE	TRACE
N-BUTANE	0.8	0.0	TRACE
ISOBUTANE	0.5	0.0	0.0
N-PENTANE	0.3	0.0	0.1
ISOPENTANE	0.3	0.0	0.0
CYCLOPENTANE	0.2	0.0	0.1
HEXANES PLUS	0.4	0.0	0.2
NITROGEN	1.0	2.1	TRACE
OXYGEN	0.0	0.4	0.0
ARGON	0.0	TRACE	0.0
HYDROGEN	TRACE	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.2	3.1	6.9
HELIUM	0.01	TRACE	TRACE
HEATING VALUE*	1173	958	958
SPECIFIC GRAVITY	0.669	0.596	0.631

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 223 SAMPLE 17787	INDEX 224 SAMPLE 17541	INDEX 225 SAMPLE 17563
STATE	NEW MEXICO	NEW MEXICO	NEW MEXICO
COUNTY	SAN JUAN	SAN JUAN	SAN JUAN
FIELD	NOT GIVEN	OTERO	OTERO
WELL NAME	CHAVEZ GAS COM-F NO.1	BROWNING-STEWART NO. 4	STATE GAS COM CA NO. 1
LOCATION	SEC. 23, T29N, R10W	SEC. 11, T28N, R11W	SEC. 16, T29N, R11W
OWNER	AMOCO PRODUCTION CO.	SOUTHLAND ROYALTY CO.	AMOCO PRODUCTION CO.
COMPLETED	05/21/85	09/09/84	06/19/84
SAMPLED	07/25/85	12/12/84	01/10/85
FORMATION	CRET-CHACRA	CRET-CHACRA	CRET-CHACRA
GEOLOGIC PROVINCE CODE	580	580	580
DEPTH, FEET	2956	2950	2950
WELLHEAD PRESSURE,PSIG	1040	1230	767
OPEN FLOW, MCFD	2813	1295	1556
COMPONENT, MOLE PCT			
METHANE	83.8	87.1	81.4
ETHANE	6.2	6.2	6.2
PROPANE	3.0	2.8	2.8
N-BUTANE	0.9	0.7	0.7
ISOBUTANE	0.4	0.5	0.4
N-PENTANE	0.3	0.2	0.1
ISOPENTANE	0.3	0.3	0.3
CYCLOPENTANE	0.3	0.1	TRACE
HEXANES PLUS	0.6	0.2	0.1
NITROGEN	4.0	1.7	7.7
OXYGEN	0.0	0.1	TRACE
ARGON	0.0	TRACE	TRACE
HYDROGEN	TRACE	TRACE	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.2	0.2
HELIUM	0.01	0.03	0.01
HEATING VALUE*	1149	1142	1068
SPECIFIC GRAVITY	0.684	0.658	0.673

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 226 SAMPLE 17701	INDEX 227 SAMPLE 17799	INDEX 228 SAMPLE 17845
STATE	NEW YORK	NEW YORK	NEW YORK
COUNTY	CHAUTAUQUA	CHAUTAUQUA	CHAUTAUQUA
FIELD	GERRY	GERRY	GERRY TOWNSHIP
WELL NAME	TOMPSETT NO. 4	FORBES NO. 6	MOREY 6287 NO. 1
LOCATION	GERRY TOWNSHIP	GERRY TOWNSHIP	SEC. A, GERRY QUAD
OWNER	BEREA OIL & GAS CORP.	BEREA OIL & GAS CORP.	EMPIRE EXPLORATION, INC.
COMPLETED	12/11/84	04/04/85	02/21/83
SAMPLED	06/07/85	08/06/85	09/25/85
FORMATION	DEVO-BASS ISLAND	DEVO-BASS ISLAND	DEVO-ONONDAGA
GEOLOGIC PROVINCE CODE	160	160	160
DEPTH, FEET	2846	2310	2636
WELLHEAD PRESSURE,PSIG	450	480	725
OPEN FLOW, MCFD	25	1500	6000
COMPONENT, MOLE PCT			
METHANE	59.9	79.8	78.3
ETHANE	19.7	11.4	11.3
PROPANE	10.4	4.2	4.4
N-BUTANE	3.3	1.0	1.2
ISOBUTANE	1.1	0.3	0.3
N-PENTANE	1.0	0.2	0.3
ISOPENTANE	0.7	0.2	0.2
CYCLOPENTANE	0.2	0.1	0.1
HEXANES PLUS	0.5	0.2	0.2
NITROGEN	3.2	2.2	3.1
OXYGEN	0.1	0.0	0.1
ARGON	TRACE	0.1	TRACE
HYDROGEN	TRACE	0.2	0.2
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.0	0.2	0.2
HELIUM	0.01	0.05	0.13
HEATING VALUE*	1484	1197	1196
SPECIFIC GRAVITY	0.886	0.699	0.707

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 229 SAMPLE 17876	INDEX 230 SAMPLE 17797	INDEX 231 SAMPLE 17798
STATE	NEW YORK	NEW YORK	NEW YORK
COUNTY	CHAUTAUQUA	CHAUTAUQUA	CHAUTAUQUA
FIELD	LAKE SHORE	NOT GIVEN	NOT GIVEN
WELL NAME	BOLIBRZUCH NO. 1	CHAUTAUQUA COUNTY NO. 8	WINTON NO.5
LOCATION	SEC. 8, HAMLET QUAD., CHARLO	ELLERY TOWNSHIP	ELLERY TOWNSHIP
OWNER	U.S. ENERGY DEVELOPMENT CORP	BEREA OIL & GAS CORP.	BEREA OIL & GAS CORP.
COMPLETED	--/--/00	01/20/85	02/06/85
SAMPLED	10/24/85	08/06/85	08/06/85
FORMATION	DEVO-ORISKANY & BASS ISLAND	DEVO-BASS ISLAND	DEVO-BASS ISLAND
GEOLOGIC PROVINCE CODE	160	160	160
DEPTH, FEET	2700	2730	2818
WELLHEAD PRESSURE,PSIG	NOT GIVEN	830	590
OPEN FLOW, MCFD	2800	3900	3500
COMPONENT, MOLE PCT			
METHANE	76.9	94.6	80.8
ETHANE	10.4	1.5	10.4
PROPANE	4.0	TRACE	3.7
N-BUTANE	1.1	0.0	0.8
ISOBUTANE	0.3	0.0	0.3
N-PENTANE	0.3	0.0	0.1
ISOPENTANE	0.2	0.0	0.1
CYCLOPENTANE	0.1	0.0	TRACE
HEXANES PLUS	0.2	0.0	0.1
NITROGEN	5.3	3.3	2.9
OXYGEN	0.8	TRACE	0.1
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.2	0.3	0.2
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.2	TRACE	0.1
HELIUM	0.13	0.19	0.16
HEATING VALUE*	1152	986	1152
SPECIFIC GRAVITY	0.711	0.573	0.676

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 232 SAMPLE 17819	INDEX 233 SAMPLE 17246	INDEX 234 SAMPLE 16568
STATE	NEW YORK	NEW YORK	NORTH DAKOTA
COUNTY	ERIE	WYOMING	BILLINGS
FIELD	ORCHARD PARK	WILDCAT	WHITETAIL
WELL NAME	OAR NO. 1	BARNES NO. 1	YOURK NO. 1
LOCATION	SEC. A, GOLDEN QUAD	ATTICA QUAD, BENNINGTON TWP.	SEC. 9, T143N, R99W
OWNER	EASTERN MINERALS ASSOC.	GYPSUM ENERGY MANAGEMENT CO.	AMOCO PRODUCTION CO.
COMPLETED	07/06/85	12/23/81	06/18/81
SAMPLED	08/24/85	04/10/84	12/15/81
FORMATION	SILU-MEDINA	SILU-MEDINA	ORDO-RED RIVER
GEOLOGIC PROVINCE CODE	160	160	395
DEPTH, FEET	1790	2350	13650
WELLHEAD PRESSURE,PSIG	360	610	2168
OPEN FLOW, MCFD	NOT GIVEN	902	1000
COMPONENT, MOLE PCT			
METHANE	91.4	90.6	84.3
ETHANE	2.8	3.0	9.2
PROPANE	0.2	0.4	2.4
N-BUTANE	0.1	0.1	0.6
ISOBUTANE	0.0	0.0	0.5
N-PENTANE	0.1	0.1	0.2
ISOPENTANE	0.0	0.0	0.2
CYCLOPENTANE	TRACE	TRACE	TRACE
HEXANES PLUS	0.1	0.1	0.1
NITROGEN	4.9	5.4	0.9
OXYGEN	TRACE	0.0	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.1	0.0	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.2
CARBON DIOXIDE	TRACE	0.1	1.1
HELIUM	0.21	0.24	0.05
HEATING VALUE*	994	995	1142
SPECIFIC GRAVITY	0.594	0.602	0.665

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 235 SAMPLE 17839	INDEX 236 SAMPLE 17830	INDEX 237 SAMPLE 17800
STATE	NORTH DAKOTA	NORTH DAKOTA	NORTH DAKOTA
COUNTY	MCKENZIE	MCKENZIE	MCKENZIE
FIELD	BIECEGAL CREEK	CHERRY CREEK	EDGE
WELL NAME	FEDERAL STORM NO. 13-6	MORK NO. 1	OSCAR JONSRUD NO. 1
LOCATION	SEC. 6, T145N, R99W	SEC. 8, T149N, R99W	SEC. 5, T151N, R96W
OWNER	ADOBE OIL & GAS CORP.	APACHE CORP.	TEXACO INC.
COMPLETED	04/--/83	--/--/00	01/30/85
SAMPLED	09/--/85	09/16/85	08/06/85
FORMATION	ORDO-RED RIVER	ORDO-RED RIVER	SILU-INTERLAKE
GEOLOGIC PROVINCE CODE	395	395	395
DEPTH, FEET	13661	14006	12291
WELLHEAD PRESSURE,PSIG	2050	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD	3000	600	200
COMPONENT, MOLE PCT			
METHANE	77.7	75.7	71.3
ETHANE	7.5	5.9	9.4
PROPANE	2.7	1.8	4.6
N-BUTANE	1.0	0.8	2.0
ISOBUTANE	0.8	0.5	1.6
N-PENTANE	0.5	0.4	1.1
ISOPENTANE	0.3	0.2	1.0
CYCLOPENTANE	0.1	0.1	0.2
HEXANES PLUS	0.3	0.3	1.3
NITROGEN	1.1	0.2	5.6
OXYGEN	0.1	0.0	0.0
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.3	0.1	0.0
HYDROGEN SULFIDE**	6.0	12.8	0.6
CARBON DIOXIDE	1.6	1.4	1.3
HELIUM	0.04	0.03	0.03
HEATING VALUE*	1145	1090	1299
SPECIFIC GRAVITY	0.728	0.739	0.817

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 238 SAMPLE 17924	INDEX 239 SAMPLE 17514	INDEX 240 SAMPLE 17747
STATE	NORTH DAKOTA	NORTH DAKOTA	NORTH DAKOTA
COUNTY	MCKENZIE	MCKENZIE	MCKENZIE
FIELD	EDGE	TIMBER CREEK	TOBACCO GARDEN
WELL NAME	OSCAR JONSRUD NO. 1	ROY MOEN NO. 1	FELLANO NO. A-1
LOCATION	SEC. 5, T151N, R96W	SEC. 35, T150N,R100W	SEC. 15, T150N, R99W
OWNER	TEXACO INC.	MOBIL OIL CORP.	TEXACO INC.
COMPLETED	01/30/85	--/--/83	01/03/81
SAMPLED	12/04/85	11/01/84	07/12/85
FORMATION	DEVO-DUPEROW	ORDO-RED RIVER	ORDO-RED RIVER
GEOLOGIC PROVINCE CODE	395	395	395
DEPTH, FEET	11160	14184	14042
WELLHEAD PRESSURE,PSIG	NOT GIVEN	1800	4900
OPEN FLOW, MCFD	NOT GIVEN	862	1800
COMPONENT, MOLE PCT			
METHANE	62.0	92.6	80.8
ETHANE	13.8	5.2	3.4
PROPANE	9.3	0.5	1.0
N-BUTANE	5.2	0.2	0.5
ISOBUTANE	1.2	TRACE	0.4
N-PENTANE	3.2	0.1	0.4
ISOPENTANE	1.7	TRACE	0.0
CYCLOPENTANE	0.6	TRACE	0.2
HEXANES PLUS	2.3	TRACE	0.7
NITROGEN	0.0	0.5	0.5
OXYGEN	TRACE	TRACE	0.1
ARGON	0.0	TRACE	TRACE
HYDROGEN	TRACE	0.2	0.1
HYDROGEN SULFIDE**	0.0	0.3	10.9
CARBON DIOXIDE	0.8	0.2	1.0
HELIUM	0.01	0.02	0.02
HEATING VALUE*	1682	1058	1066
SPECIFIC GRAVITY	0.983	0.594	0.704

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 241 SAMPLE 17724	INDEX 242 SAMPLE 17516	INDEX 243 SAMPLE 17784
STATE	OHIO	OHIO	OHIO
COUNTY	ASHTABULA	GALLIA	WASHINGTON
FIELD	ASHTABULA	GALLIA PROJECT	BARTLETT
WELL NAME	RHOA NO. 3	GRADY WAUGH NO. 1	B. PICKERING NO. 1
LOCATION	NEW LYME TOWNSHIP, LOT 8	SEC. 11, PERRY TWP.	SEC. 16, FAIRFIELD TWP.
OWNER	PARK-OHIO ENERGY, INC.	GALLIA PROJECT ACCOUNT	SUN EXPLORATION & PRODUCTION
COMPLETED	04/01/82	01/31/71	05/25/82
SAMPLED	06/17/85	11/01/84	07/22/85
FORMATION	ORDO-ROSE RUN	MISS-COW RUN	SILU-MEDINA
GEOLOGIC PROVINCE CODE	160	160	160
DEPTH, FEET	6148	663	5370
WELLHEAD PRESSURE,PSIG	2003	285	1650
OPEN FLOW, MCFD	2000	60	595
COMPONENT, MOLE PCT			
METHANE	86.5	89.3	80.1
ETHANE	5.3	2.0	6.8
PROPANE	2.8	TRACE	2.5
N-BUTANE	1.5	0.0	0.8
ISOBUTANE	0.7	0.0	0.4
N-PENTANE	0.6	0.0	0.4
ISOPENTANE	0.6	0.0	0.1
CYCLOPENTANE	0.1	0.0	0.2
HEXANES PLUS	0.4	0.0	0.6
NITROGEN	1.2	7.8	7.7
OXYGEN	TRACE	0.1	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.1	TRACE	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.5	0.2
HELIUM	0.05	0.33	0.14
HEATING VALUE*	1194	940	1098
SPECIFIC GRAVITY	0.682	0.601	0.692

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 244 SAMPLE 17901	INDEX 245 SAMPLE 17653	INDEX 246 SAMPLE 17544
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	ALFALFA	ALFALFA	BEAVER
FIELD	BURLINGTON S	WAKITA TREND	BALKO S
WELL NAME	KASPAREK-LEWIS NO. 1-27	PASCHALL NO. 22-1	MORRIS 22-1 NO. 1
LOCATION	SEC. 27, T28N, R12W	SEC. 22, T28N, R9N	SEC. 22, T1N, R22 ECM
OWNER	CHAMPLIN PETROLEUM CO.	MID-AMERICA PETROLEUM CORP.	INTERNORTH, INC.
COMPLETED	06/29/85	02/28/84	02/03/84
SAMPLED	--/--/00	03/01/85	12/20/84
FORMATION	DEVO-MISENER	PENN-RED FORK	MISS-CHESTER
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	5581	5140	8503
WELLHEAD PRESSURE,PSIG	1851	1400	2197
OPEN FLOW, MCFD	5000	1379	1450
COMPONENT, MOLE PCT			
METHANE	78.9	84.0	91.6
ETHANE	8.3	6.1	2.3
PROPANE	5.0	3.2	0.8
N-BUTANE	1.9	1.8	0.3
ISOBUTANE	TRACE	0.7	0.2
N-PENTANE	0.8	0.8	0.1
ISOPENTANE	0.2	0.5	0.1
CYCLOPENTANE	0.1	0.1	0.1
HEXANES PLUS	0.3	0.3	0.2
NITROGEN	4.0	2.3	3.6
OXYGEN	TRACE	TRACE	0.0
ARGON	TRACE	0.0	0.1
HYDROGEN	TRACE	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.3	0.2	0.3
HELIUM	0.07	0.08	0.32
HEATING VALUE*	1204	1202	1029
SPECIFIC GRAVITY	0.721	0.701	0.609

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 247 SAMPLE 17255	INDEX 248 SAMPLE 16265	INDEX 249 SAMPLE 17899
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	BEAVER	BECKHAM	BECKHAM
FIELD	SIX MILE S	ELK CITY	ELK CITY
WELL NAME	OVERTON NO. 2	MIKLES NO. 1	DAVIS NO. 2-29
LOCATION	SEC. 14, T3N, R23ECM	SEC. 10, T10N, R22W	SEC. 29, T11N, R22W
OWNER	ESSEX EXPLORATION, INC.	APACHE CORP.	APACHE CORP.
COMPLETED	11/14/83	--/--/00	03/11/85
SAMPLED	04/18/84	05/23/81	11/08/85
FORMATION	PENN-MORROW	PENN-CHEROKEE & PERM-GRAN WS	PENN-GRANITE WASH
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	6874	11790	12537
WELLHEAD PRESSURE,PSIG	950	3800	2221
OPEN FLOW, MCFD	2831	4825	17465
COMPONENT, MOLE PCT			
METHANE	81.0	87.1	75.4
ETHANE	8.1	6.7	11.9
PROPANE	5.4	3.1	6.3
N-BUTANE	1.4	0.8	2.0
ISOBUTANE	0.5	0.4	0.5
N-PENTANE	0.3	0.2	0.7
ISOPENTANE	0.3	0.2	0.4
CYCLOPENTANE	0.1	0.1	0.1
HEXANES PLUS	0.2	0.2	0.4
NITROGEN	2.2	0.9	1.3
OXYGEN	TRACE	TRACE	TRACE
ARGON	0.0	0.0	TRACE
HYDROGEN	0.0	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.4	0.3	0.9
HELIUM	0.16	0.04	0.05
HEATING VALUE*	1209	1154	1296
SPECIFIC GRAVITY	0.708	0.658	0.761

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 250 SAMPLE 17826	INDEX 251 SAMPLE 17384	INDEX 252 SAMPLE 16596
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	BECKHAM	BLAINE	BLAINE
FIELD	MAYFIELD W	GREENFIELD NW	LONGDALE
WELL NAME	SUTTON NO. 1	-C- FARMS INC. NO. 1	BAKER NO. 1-11
LOCATION	SEC. 9, T10N, R26W	SEC. 8, T14N, R11W	SEC. 11, T19N, R13W
OWNER	E.T.S. ENTERPRISES, INC.	TXO PRODUCTION CORP.	SENECA OIL CO.
COMPLETED	10/25/84	10/27/82	09/23/80
SAMPLED	--/--/00	08/--/84	07/26/82
FORMATION	PENN-DES MOINES	PENN-MORROW	DEVO-HUNTON
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	12382	9882	9555
WELLHEAD PRESSURE,PSIG	NOT GIVEN	1300	3150
OPEN FLOW, MCFD	2024	1800	1200
COMPONENT, MOLE PCT			
METHANE	71.6	88.6	93.3
ETHANE	9.7	6.0	2.6
PROPANE	6.4	2.4	0.9
N-BUTANE	2.6	0.6	0.3
ISOBUTANE	1.6	0.4	0.3
N-PENTANE	1.0	TRACE	0.2
ISOPENTANE	1.2	0.5	TRACE
CYCLOPENTANE	0.9	0.2	0.1
HEXANES PLUS	2.2	0.3	0.4
NITROGEN	2.3	0.4	0.8
OXYGEN	0.1	TRACE	0.0
ARGON	0.0	TRACE	0.0
HYDROGEN	0.1	0.0	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.4	0.6	0.7
HELIUM	0.04	0.03	0.03
HEATING VALUE*	1448	1145	1068
SPECIFIC GRAVITY	0.857	0.651	0.609

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 253 SAMPLE 17852	INDEX 254 SAMPLE 17603	INDEX 255 SAMPLE 16867
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	BLAINE	BLAINE	CADDO
FIELD	OKEENE NW	SQUAW CREEK	APACHE SE
WELL NAME	LEO NO. 1	HOWLING WOMAN NO. 1-12	MINDEMANN NO. 1-30
LOCATION	SEC. 12, T18N, R11W	SEC. 12, T13N, R12W	SEC. 30, T5N, R10W
OWNER	TXO PRODUCTION CORP.	SOUTHPORT EXPLORATION, INC.	KIRBY EXPLORATION CO.
COMPLETED	01/27/85	11/01/83	04/--/82
SAMPLED	10/02/85	--/--/00	04/11/83
FORMATION	PENN-OSWEGO	PENN-SPRINGER	PENN-BRITT
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	7280	11600	17260
WELLHEAD PRESSURE,PSIG	1760	300	8600
OPEN FLOW, MCFD	1350	1200	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE	86.9	83.7	95.5
ETHANE	6.1	3.9	1.6
PROPANE	3.0	1.2	0.2
N-BUTANE	0.9	0.3	0.0
ISOBUTANE	0.2	0.2	0.0
N-PENTANE	0.2	0.1	0.0
ISOPENTANE	0.5	0.1	0.0
CYCLOPENTANE	0.4	TRACE	0.0
HEXANES PLUS	0.4	0.2	0.0
NITROGEN	0.9	7.5	1.3
OXYGEN	0.0	1.8	0.3
ARGON	0.0	0.1	TRACE
HYDROGEN	TRACE	TRACE	0.2
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.4	0.7	0.9
HELIUM	0.06	0.02	0.02
HEATING VALUE*	1170	985	1002
SPECIFIC GRAVITY	0.669	0.649	0.579

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 256 SAMPLE 16312	INDEX 257 SAMPLE 17616	INDEX 258 SAMPLE 17731
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	CADDO	CADDO	CADDO
FIELD	BINGER	BINGER W	BINGER W
WELL NAME	PATTERSON NO. 1	HAAS NO. 2	DONALD GRAY NO. 1-28
LOCATION	SEC. 17, T10N, R10W	SEC. 36, T10N, R12W	SEC. 28, T10N, R12W
OWNER	COTTON PETROLEUM CORP.	AMOCO PRODUCTION CO.	GRACE PETROLEUM CORP.
COMPLETED	--/--/00	11/29/84	02/18/84
SAMPLED	08/06/81	--/--/00	06/25/85
FORMATION	PENN-MORROW	PENN-SPRINGER	PENN-BRITT
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	13282	15682	15647
WELLHEAD PRESSURE,PSIG	NOT GIVEN	10171	8662
OPEN FLOW, MCFD	2085	30000	11059
COMPONENT, MOLE PCT			
METHANE	96.7	96.9	96.8
ETHANE	1.3	1.1	1.1
PROPANE	0.2	0.1	0.1
N-BUTANE	0.0	0.0	0.0
ISOBUTANE	0.0	0.0	0.0
N-PENTANE	0.0	0.0	0.0
ISOPENTANE	0.0	0.0	0.0
CYCLOPENTANE	0.0	0.0	0.0
HEXANES PLUS	0.0	0.0	0.0
NITROGEN	0.4	0.2	0.4
OXYGEN	0.0	0.0	0.0
ARGON	TRACE	TRACE	0.0
HYDROGEN	0.0	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	1.4	1.6	1.5
HELIUM	0.02	0.02	0.01
HEATING VALUE*	1008	1004	1003
SPECIFIC GRAVITY	0.578	0.577	0.577

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 259 SAMPLE 17900	INDEX 260 SAMPLE 17265	INDEX 261 SAMPLE 17693
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	CADDO	CADDO	CADDO
FIELD	BRIDGE	BROXTON N	EAKLY E
WELL NAME	MC COOL NO. 1-25	VERMA NO. 1	J. E. SMITH NO. 1
LOCATION	SEC. 25, T12N, R12W	SEC. 34, T7N, R12W	SEC. 26, T10N, R12W
OWNER	BRACKEN EXPLORATION CO.	RICKS EXPLORATION CO.	AMOCO PRODUCTION CO.
COMPLETED	07/07/85	03/12/83	72/98/2
SAMPLED	11/07/85	04/19/84	05/17/85
FORMATION	PENN-ATOKA	MISS-GODDARD	PENN-RED FORK
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	12522	20631	15825
WELLHEAD PRESSURE,PSIG	8300	13600	3200
OPEN FLOW, MCFD	1300	60	3481
COMPONENT, MOLE PCT			
METHANE	92.8	96.4	86.3
ETHANE	4.5	0.6	8.1
PROPANE	0.9	0.1	2.7
N-BUTANE	0.2	0.0	0.6
ISOBUTANE	TRACE	0.0	0.3
N-PENTANE	0.1	0.0	0.2
ISOPENTANE	TRACE	0.0	TRACE
CYCLOPENTANE	0.1	0.0	0.1
HEXANES PLUS	0.1	0.0	0.3
NITROGEN	0.4	1.0	0.6
OXYGEN	0.0	TRACE	0.0
ARGON	TRACE	TRACE	0.0
HYDROGEN	0.0	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.9	1.9	0.8
HELIUM	0.03	0.02	0.03
HEATING VALUE*	1064	990	1147
SPECIFIC GRAVITY	0.605	0.581	0.658

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 262 SAMPLE 16954	INDEX 263 SAMPLE 16335	INDEX 264 SAMPLE 16336
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	CADDO	CANADIAN	CANADIAN
FIELD	WILDCAT	ENID NE	ENID NE
WELL NAME	JENNINGS NO. 1	MCKINNEY NO. 1	MCKINNEY NO. 1
LOCATION	SEC. 6, T8N, R10W	SEC. 28, T12N, R5W	SEC. 28, T12N, R5W
OWNER	RICKS EXPLORATION CO.	MORAN EXPLORATION, INC.	MORAN EXPLORATION, INC.
COMPLETED	05/25/83	--/--/00	--/--/00
SAMPLED	05/25/83	08/01/81	08/01/81
FORMATION	PENN-RED FORK	DEVO-HUNTON & MISS	PENN-OSWEGO
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	13864	7300	7200
WELLHEAD PRESSURE,PSIG	6000	1600	1800
OPEN FLOW, MCFD	4850	800	1500
COMPONENT, MOLE PCT			
METHANE	78.5	79.5	77.8
ETHANE	9.1	10.7	9.9
PROPANE	3.1	4.9	5.6
N-BUTANE	0.6	1.5	1.5
ISOBUTANE	0.7	0.5	0.7
N-PENTANE	0.1	0.4	0.3
ISOPENTANE	0.8	0.3	0.3
CYCLOPENTANE	0.3	0.1	0.1
HEXANES PLUS	0.6	0.2	0.2
NITROGEN	4.1	1.4	2.9
OXYGEN	0.9	0.0	0.0
ARGON	TRACE	0.0	0.0
HYDROGEN	0.2	0.0	0.0
HYDROGEN SULFIDE**	0.0	TRACE	TRACE
CARBON DIOXIDE	0.8	0.5	0.5
HELIUM	0.03	0.04	0.07
HEATING VALUE*	1163	1236	1225
SPECIFIC GRAVITY	0.715	0.723	0.732

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 265 SAMPLE 17824	INDEX 266 SAMPLE 17607	INDEX 267 SAMPLE 17151
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	CANADIAN	CANADIAN	CIMARRON
FIELD	MUSTANG SW	WATONGA-CHICKASHA TREND	GRIGGS SE
WELL NAME	GUTIERREZ NO. 1-27	HICKERSON NO. 2-36	HITCH NO. 2
LOCATION	SEC. 27, T11N, R6W	SEC. 36, T14N, R9W	SEC. 25, T2N, R9ECM
OWNER	TRINEHA, INC.	KAISER-FRANCIS OIL CO.	SPECTRA ENERGY CORP.
COMPLETED	06/19/85	11/10/84	07/14/83
SAMPLED	08/28/85	03/07/85	01/08/84
FORMATION	PENN-& MISS	PENN-ATOKA	PENN-ATOKA-MORROW U
GEOLOGIC PROVINCE CODE	360	360	435
DEPTH, FEET	9032	9670	4247
WELLHEAD PRESSURE,PSIG	2150	3200	800
OPEN FLOW, MCFD	795	2600	2250
COMPONENT, MOLE PCT			
METHANE	75.1	93.4	83.0
ETHANE	8.2	2.6	5.4
PROPANE	5.2	0.9	2.8
N-BUTANE	3.1	0.2	0.8
ISOBUTANE	1.1	0.1	0.3
N-PENTANE	1.7	0.1	0.2
ISOPENTANE	1.2	0.1	0.3
CYCLOPENTANE	0.7	0.1	TRACE
HEXANES PLUS	2.1	0.2	0.1
NITROGEN	1.0	0.9	6.5
OXYGEN	0.1	0.3	0.2
ARGON	0.0	0.6	TRACE
HYDROGEN	TRACE	TRACE	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.5	0.5	0.1
HELIUM	0.03	0.02	0.27
HEATING VALUE*	1442	1049	1074
SPECIFIC GRAVITY	0.841	0.607	0.666

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 268 SAMPLE 17385	INDEX 269 SAMPLE 17742	INDEX 270 SAMPLE 17791
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	COMANCHE	CUSTER	CUSTER
FIELD	FORT SILL	ANTHON NE	BULTER
WELL NAME	DEEDEE NO. 2-9	KINCAID NO. 1	DICKERSON NO. 28-1
LOCATION	SEC. 9, T3N, R10W	SEC. 22, T15N, R17W	SEC. 28, T14N, R17W
OWNER	TXO PRODUCTION CORP.	WARD PETROLEUM CO.	SANTA FE MINERALS, INC.
COMPLETED	10/13/83	10/30/84	06/06/84
SAMPLED	08/--/84	--/--/00	07/19/85
FORMATION	PENN-SPRINGER	PENN-SPRINGER	PENN-MORROW
GEOLOGIC PROVINCE CODE	350	360	360
DEPTH, FEET	4906	12160	14029
WELLHEAD PRESSURE,PSIG	1920	4600	2300
OPEN FLOW, MCFD	1000	40233	1500
COMPONENT, MOLE PCT			
METHANE	91.8	96.0	97.0
ETHANE	4.2	1.0	1.2
PROPANE	1.4	0.2	0.2
N-BUTANE	0.4	0.0	0.0
ISOBUTANE	0.2	0.0	0.0
N-PENTANE	0.2	0.0	0.0
ISOPENTANE	0.1	0.0	0.0
CYCLOPENTANE	0.1	0.0	0.0
HEXANES PLUS	0.2	0.0	0.0
NITROGEN	1.2	1.2	0.3
OXYGEN	TRACE	0.2	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	TRACE	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	1.3	1.2
HELIUM	0.08	0.02	0.02
HEATING VALUE*	1089	996	1009
SPECIFIC GRAVITY	0.616	0.580	0.575

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 271 SAMPLE 17910	INDEX 272 SAMPLE 17898	INDEX 273 SAMPLE 16889
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	CUSTER	CUSTER	CUSTER
FIELD	BUTLER-CUSTER	CANUTE N	CLINTON
WELL NAME	PHILLIPS DELOIS NO. 1-32	SANDERS NO. 1-17	STRATTON FARMS NO. 3-1
LOCATION	SEC. 32, T14N, R18W	SEC. 17, T12N, R20W	SEC. 3, T12N, R17W
OWNER	MUSTANG PRODUCTION CO.	APACHE CORP.	WOODS PETROLEUM CORP.
COMPLETED	05/03/85	08/18/85	03/26/82
SAMPLED	11/18/85	11/08/85	04/20/83
FORMATION	PENN-SKINNER	PENN-RED FORK	PENN-ATOKA
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	11473	13547	14532
WELLHEAD PRESSURE,PSIG	2800	7200	10000
OPEN FLOW, MCFD	1800	2098	750
COMPONENT, MOLE PCT			
METHANE	82.7	91.5	95.4
ETHANE	8.8	4.6	2.2
PROPANE	4.2	1.2	0.3
N-BUTANE	1.2	0.3	TRACE
ISOBUTANE	0.4	0.2	TRACE
N-PENTANE	0.4	0.2	TRACE
ISOPENTANE	0.4	TRACE	TRACE
CYCLOPENTANE	0.1	0.1	TRACE
HEXANES PLUS	0.3	0.3	TRACE
NITROGEN	0.6	0.4	0.4
OXYGEN	TRACE	TRACE	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	TRACE	0.2
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	1.0	1.1	1.3
HELIUM	0.03	0.02	0.02
HEATING VALUE*	1212	1085	1014
SPECIFIC GRAVITY	0.702	0.622	0.581

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 274 SAMPLE 16478	INDEX 275 SAMPLE 16952	INDEX 276 SAMPLE 16535
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	CUSTER	CUSTER	CUSTER
FIELD	HAMMON E	LEEDEY S	STAFFORD
WELL NAME	RED MOON NO. 1-29	WILSON NO. 16-1	STRATTON FARMS NO. 1-5
LOCATION	SEC. 29, T14N, R20W	SEC. 16, T15N, R20W	SEC. 5, T12N, R18W
OWNER	READING & BATES PETROLEUM CO	HARPER OIL CO.	BRACKEN EXPLORATION CO.
COMPLETED	01/29/82	08/02/82	02/03/82
SAMPLED	03/--/82	05/23/83	06/--/82
FORMATION	PENN-RED FORK	PENN-CHEROKEE	PENN-RED FORK
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	12290	11168	13145
WELLHEAD PRESSURE,PSIG	2050	4203	1300
OPEN FLOW, MCFD	3156	1196	1105
COMPONENT, MOLE PCT			
METHANE	84.6	79.4	81.0
ETHANE	7.5	10.3	8.8
PROPANE	2.8	5.2	4.5
N-BUTANE	0.5	1.5	1.2
ISOBUTANE	0.5	0.6	1.1
N-PENTANE	0.1	0.2	0.3
ISOPENTANE	0.3	0.8	0.8
CYCLOPENTANE	0.1	0.1	0.4
HEXANES PLUS	0.2	0.2	0.7
NITROGEN	2.2	0.6	0.4
OXYGEN	0.4	0.0	0.0
ARGON	TRACE	TRACE	0.0
HYDROGEN	TRACE	0.3	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.7	0.8	0.7
HELIUM	0.02	0.03	0.02
HEATING VALUE*	1129	1252	1270
SPECIFIC GRAVITY	0.667	0.724	0.732

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 277 SAMPLE 16386	INDEX 278 SAMPLE 17689	INDEX 279 SAMPLE 17383
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	CUSTER	CUSTER	DEWEY
FIELD	TURKEY CREEK	WEATHERFORD	CANTON NW
WELL NAME	STRATTON FARM NO. 31-1	EVA ASHBY NO. 2	BLACK BULL NO. 1
LOCATION	SEC. 31, T12N, R17W	SEC. 29, T13N, R14W	SEC. 22, T19N, R14W
OWNER	WOODS PETROLEUM CORP.	AMOCO PRODUCTION CO.	TXO PRODUCTION CORP.
COMPLETED	10/13/81	01/30/85	01/15/84
SAMPLED	11/16/81	05/17/85	08/--/84
FORMATION	PENN-ATOKA	PENN-CHEROKEE	PENN-MORROW
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	15336	11675	8424
WELLHEAD PRESSURE,PSIG	10000	5400	350
OPEN FLOW, MCFD	13500	5235	285
COMPONENT, MOLE PCT			
METHANE	96.9	79.4	76.5
ETHANE	1.2	9.0	10.7
PROPANE	0.1	5.4	6.7
N-BUTANE	0.0	1.9	1.9
ISOBUTANE	0.0	0.6	1.0
N-PENTANE	0.0	0.5	0.5
ISOPENTANE	0.0	0.9	0.6
CYCLOPENTANE	0.0	0.3	0.1
HEXANES PLUS	0.0	0.7	0.3
NITROGEN	0.4	0.8	1.0
OXYGEN	0.0	0.0	TRACE
ARGON	TRACE	0.0	TRACE
HYDROGEN	0.1	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	1.3	0.5	0.5
HELIUM	0.02	0.04	0.05
HEATING VALUE*	1006	1297	1304
SPECIFIC GRAVITY	0.575	0.749	0.757

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 280 SAMPLE 17534	INDEX 281 SAMPLE 16682	INDEX 282 SAMPLE 16533
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	DEWEY	DEWEY	DEWEY
FIELD	CANTON SW	CRANE SE	LEONEL SE
WELL NAME	P. WILLS NO. 3	COMBS NO. 1-36	JACKSON NO. 2-14
LOCATION	SEC. 36, T18N, R14W	SEC. 36, T16N, R15W	SEC. 14, T17N, R14W
OWNER	LADD PETROLEUM CORP.	SENECA OIL CO.	MUSTANG PRODUCTION CO.
COMPLETED	08/08/84	10/05/82	05/26/82
SAMPLED	12/07/84	10/05/82	05/26/82
FORMATION	DEVO-HUNTON	PENN-MORROW	PENN-MORROW
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	11288	10868	9466
WELLHEAD PRESSURE,PSIG	3900	3300	4000
OPEN FLOW, MCFD	4150	2100	2300
COMPONENT, MOLE PCT			
METHANE	90.9	92.7	87.9
ETHANE	4.4	3.7	6.6
PROPANE	1.5	1.2	2.7
N-BUTANE	0.4	0.3	0.7
ISOBUTANE	0.3	0.2	0.3
N-PENTANE	0.2	0.1	0.1
ISOPENTANE	TRACE	0.1	0.2
CYCLOPENTANE	0.2	0.1	0.1
HEXANES PLUS	0.5	0.2	0.2
NITROGEN	0.9	0.4	0.6
OXYGEN	0.1	TRACE	0.0
ARGON	0.0	TRACE	TRACE
HYDROGEN	0.1	0.1	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.5	0.9	0.5
HELIUM	0.02	0.03	0.04
HEATING VALUE*	1104	1076	1140
SPECIFIC GRAVITY	0.630	0.613	0.649

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 283 SAMPLE 17736	INDEX 284 SAMPLE 17788	INDEX 285 SAMPLE 17546
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	GARFIELD	GARVIN	GARVIN
FIELD	BROWN NW	GOLDEN TREND	NEWHOPE SE
WELL NAME	EAST DOUGLAS NO. 32-1	COREY NO. 1	VAUGHN RANCHES A NO. 1
LOCATION	SEC. 32, T21N, R4W	SEC. 15, T4N, R4W	SEC. 10, T3N, R3W
OWNER	CLARK RESOURCES, INC.	RACHALK PRODUCTION, INC.	PHILLIPS OIL CO.
COMPLETED	10/09/84	04/25/85	04/26/84
SAMPLED	06/29/85	07/26/85	12/17/84
FORMATION	MISS-CHESTER - COTTAGE GROVE	PENN-OSBORNE	MISS-SYCAMORE
GEOLOGIC PROVINCE CODE	360	350	350
DEPTH, FEET	6220	8060	8092
WELLHEAD PRESSURE,PSIG	1800	1750	2400
OPEN FLOW, MCFD	960	1240	750
COMPONENT, MOLE PCT			
METHANE	83.4	78.3	63.5
ETHANE	7.0	10.3	16.6
PROPANE	3.6	4.8	9.8
N-BUTANE	1.4	1.5	3.9
ISOBUTANE	0.6	0.4	1.3
N-PENTANE	0.5	0.5	1.4
ISOPENTANE	0.5	0.4	0.9
CYCLOPENTANE	0.2	0.1	0.4
HEXANES PLUS	0.6	0.3	1.3
NITROGEN	1.7	3.3	0.6
OXYGEN	0.0	0.0	0.1
ARGON	0.0	0.0	0.0
HYDROGEN	TRACE	TRACE	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.4	0.0	0.2
HELIUM	0.06	0.08	TRACE
HEATING VALUE*	1212	1224	1551
SPECIFIC GRAVITY	0.704	0.722	0.902

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 286 SAMPLE 17854	INDEX 287 SAMPLE 17551	INDEX 288 SAMPLE 17853
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	GARVIN	GARVIN	GRADY
FIELD	PANTHER CREEK	PAULS VALLEY N	AMBER NE
WELL NAME	MAYES HEIRS NO. 1-34	ALBERT UNIT NO. 1	ROYAL NO. 1
LOCATION	SEC. 34, T3N, R3W	SEC. 2, T3N, R1W	SEC. 14, T8N, R6W
OWNER	SONAT EXPLORATION CO.	PETROLEUM, INC.	SULLIVAN & CO.
COMPLETED	01/20/85	12/07/83	05/07/82
SAMPLED	10/04/85	--/--/00	10/03/85
FORMATION	DEVO-HUNTON	ORDO-BROMIDE	PENN-HOXBAR
GEOLOGIC PROVINCE CODE	350	350	360
DEPTH, FEET	9300	4063	7000
WELLHEAD PRESSURE,PSIG	1100	1000	2250
OPEN FLOW, MCFD	500	1877	860
COMPONENT, MOLE PCT			
METHANE	77.7	87.7	74.1
ETHANE	11.7	3.2	3.9
PROPANE	5.2	0.2	1.7
N-BUTANE	1.6	TRACE	0.5
ISOBUTANE	0.5	0.2	0.8
N-PENTANE	0.7	TRACE	0.7
ISOPENTANE	0.3	0.1	0.0
CYCLOPENTANE	0.3	0.1	1.5
HEXANES PLUS	0.7	TRACE	3.5
NITROGEN	1.1	5.8	12.2
OXYGEN	0.0	0.7	1.0
ARGON	0.0	0.1	0.0
HYDROGEN	TRACE	0.1	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.3	1.7	TRACE
HELIUM	0.03	0.03	0.07
HEATING VALUE*	1292	966	1174
SPECIFIC GRAVITY	0.746	0.623	0.792

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 289 SAMPLE 17863	INDEX 290 SAMPLE 17869	INDEX 291 SAMPLE 17593
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	GRADY	GRADY	GRADY
FIELD	BRADLEY GOLDEN TREND	CHICKASHA N	TUTTLE E
WELL NAME	RAYBURN NO. A-1	DOVER "A" NO. 2	W. C. FREEZE NO. 1
LOCATION	SEC. 25, T5N, R5W	SEC. 17, T7N, R7W	SEC. 2, T9N, R5W
OWNER	CITIES SERVICE OIL & GAS COR	COTTON PETROLEUM CORP.	KAISER-FRANCIS OIL CO.
COMPLETED	11/28/82	01/13/85	--/--/00
SAMPLED	10/11/85	10/14/85	02/15/85
FORMATION	PERM-HART	PENN-WADE	PENN-BERRY
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	8622	8408	10732
WELLHEAD PRESSURE,PSIG	1577	2275	175
OPEN FLOW, MCFD	400	1075	605
COMPONENT, MOLE PCT			
METHANE	75.5	90.7	85.6
ETHANE	9.8	3.1	5.4
PROPANE	5.5	1.4	2.2
N-BUTANE	2.1	0.4	0.6
ISOBUTANE	0.7	0.1	0.3
N-PENTANE	0.9	0.2	0.2
ISOPENTANE	0.3	0.1	0.3
CYCLOPENTANE	0.5	0.1	0.1
HEXANES PLUS	1.0	0.3	0.2
NITROGEN	3.3	3.2	1.5
OXYGEN	0.0	0.0	0.0
ARGON	0.0	TRACE	TRACE
HYDROGEN	0.0	TRACE	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.3	0.3	3.5
HELIUM	0.08	0.09	0.06
HEATING VALUE*	1299	1059	1087
SPECIFIC GRAVITY	0.773	0.622	0.673

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 292 SAMPLE 16310	INDEX 293 SAMPLE 17686	INDEX 294 SAMPLE 17252
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	GRADY	HARPER	HARPER
FIELD	VERDEN S	BUFFALO SW	CLARK CREEK W
WELL NAME	UNRUH NO. 1	DOWNS NO. 1	NADINE NO. 1021
LOCATION	SEC. 29, T7N, R8W	SEC. 1, T27N, R23W	SEC. 21, T29N, R24W
OWNER	COTTON PETROLEUM CORP.	TXO PRODUCTION CORP.	NATURAL GAS ANADARKO, INC.
COMPLETED	06/--/80	09/26/84	05/16/83
SAMPLED	08/06/81	05/29/85	04/12/84
FORMATION	PENN-SPRINGER	PENN-MORROW	MISS-CHESTER
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	16333	5940	6050
WELLHEAD PRESSURE,PSIG	NOT GIVEN	NOT GIVEN	1490
OPEN FLOW, MCFD	2147	1800	2892
COMPONENT, MOLE PCT			
METHANE	95.6	88.8	84.4
ETHANE	2.4	4.5	5.1
PROPANE	0.4	2.6	2.4
N-BUTANE	0.1	0.9	0.8
ISOBUTANE	TRACE	0.4	0.4
N-PENTANE	TRACE	0.2	0.3
ISOPENTANE	TRACE	0.5	0.2
CYCLOPENTANE	TRACE	0.1	0.1
HEXANES PLUS	0.1	0.3	0.2
NITROGEN	0.4	1.4	5.7
OXYGEN	0.0	0.0	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	TRACE	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	1.0	0.3	0.2
HELIUM	0.02	0.10	0.20
HEATING VALUE*	1030	1140	1084
SPECIFIC GRAVITY	0.586	0.654	0.663

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 295 SAMPLE 16594	INDEX 296 SAMPLE 17598	INDEX 297 SAMPLE 17895
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	HASKELL	HASKELL	HUGHES
FIELD	KINTA	KINTA	LAMAR W
WELL NAME	BONHAM B NO. 1-1	SMITH NO. 2-9	YAROSLASKI NO. 1
LOCATION	SEC. 1, T9N, R22E	SEC. 9, T9N, R23E	SEC. 8, T7N, R11E
OWNER	HADSON PETROLEUM CO.	C & S EXPLORATION, INC.	GLENCO INTERNATIONAL CORP.
COMPLETED	--/--/81	05/26/84	03/26/85
SAMPLED	07/--/82	02/25/85	11/07/85
FORMATION	PENN-ATOKA	PENN-ATOKA	PENN-RED FORK
GEOLOGIC PROVINCE CODE	345	345	355
DEPTH, FEET	7314	1218	1798
WELLHEAD PRESSURE,PSIG	165	140	220
OPEN FLOW, MCFD	NOT GIVEN	2673	130
COMPONENT, MOLE PCT			
METHANE	95.8	96.7	88.8
ETHANE	1.0	2.2	3.2
PROPANE	0.1	0.2	1.6
N-BUTANE	0.0	0.0	0.6
ISOBUTANE	0.0	0.0	0.2
N-PENTANE	0.0	0.0	0.5
ISOPENTANE	0.0	0.0	0.0
CYCLOPENTANE	0.0	0.0	0.2
HEXANES PLUS	0.0	0.0	0.6
NITROGEN	0.7	0.5	4.0
OXYGEN	TRACE	0.1	0.0
ARGON	TRACE	TRACE	0.0
HYDROGEN	0.1	0.1	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	2.2	0.2	0.2
HELIUM	0.08	0.05	0.10
HEATING VALUE*	991	1024	1085
SPECIFIC GRAVITY	0.584	0.572	0.644

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 298 SAMPLE 16464	INDEX 299 SAMPLE 17309	INDEX 300 SAMPLE 16431
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	HUGHES	KINGFISHER	LATIMER
FIELD	WETUMKA DISTRICT E	OKARCHE N	NOT GIVEN
WELL NAME	ALPHA NO. 1	ANNUSCHATT NO.1-11	PIERCE NO. 1-30
LOCATION	SEC. 15, T9N, R10E	SEC. 11, T15N, R8W	SEC. 30, T6N, R20E
OWNER	W&W EXPLORATION, INC.	HG&G, INC.	TENNECO OIL CO.
COMPLETED	04/07/81	10/--/82	12/07/81
SAMPLED	02/22/82	05/17/84	02/23/82
FORMATION	PENN-GILCREASE	DEVO-HUNTON	PENN-ATOKA BASAL
GEOLOGIC PROVINCE CODE	355	360	345
DEPTH, FEET	2662	9200	13840
WELLHEAD PRESSURE,PSIG	400	1200	4400
OPEN FLOW, MCFD	NOT GIVEN	1700	1140
COMPONENT, MOLE PCT			
METHANE	87.6	43.9	94.4
ETHANE	4.2	26.8	0.3
PROPANE	2.2	17.5	TRACE
N-BUTANE	0.7	5.7	0.0
ISOBUTANE	0.3	2.9	0.0
N-PENTANE	0.2	1.6	0.0
ISOPENTANE	0.1	0.7	0.0
CYCLOPENTANE	0.1	0.2	0.0
HEXANES PLUS	0.2	0.6	0.0
NITROGEN	4.2	0.0	0.4
OXYGEN	0.0	0.1	0.1
ARGON	TRACE	0.0	TRACE
HYDROGEN	0.0	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.2	4.6
HELIUM	0.13	TRACE	0.04
HEATING VALUE*	1080	1806	962
SPECIFIC GRAVITY	0.643	1.059	0.602

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 301 SAMPLE 17573	INDEX 302 SAMPLE 17642	INDEX 303 SAMPLE 17609
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	LINCOLN	LINCOLN	LOGAN
FIELD	PARKLAND W	PRAIRIE GEM SW	EDMOND-WATERLOO N
WELL NAME	MINNIE B. MARTIN NO. 1	PATRICK NO. 1	EMMONS NO. 1-35
LOCATION	SEC. 28, T16N, R4E	SEC. 8, T16N, R2E	SEC. 35, T15N, R3W
OWNER	PAN WESTERN ENERGY CORP.	ROYAL OAKS PETROLEUM CORP.	AMCANA OIL CO.
COMPLETED	--/--/00	--/--/00	06/28/83
SAMPLED	01/24/85	04/06/85	02/25/85
FORMATION	PENN-RED FORK	PENN-RED FORK	DEVO-MISENER
GEOLOGIC PROVINCE CODE	355	355	355
DEPTH, FEET	4000	NOT GIVEN	6071
WELLHEAD PRESSURE,PSIG	250	250	275
OPEN FLOW, MCFD	425	300	952
COMPONENT, MOLE PCT			
METHANE	71.0	75.5	70.0
ETHANE	5.9	7.9	10.8
PROPANE	3.6	5.3	8.6
N-BUTANE	1.4	1.7	3.4
ISOBUTANE	0.5	0.9	0.9
N-PENTANE	0.4	0.4	1.0
ISOPENTANE	0.4	0.3	0.2
CYCLOPENTANE	0.1	0.1	0.1
HEXANES PLUS	0.3	0.2	0.3
NITROGEN	15.0	7.4	3.9
OXYGEN	1.1	TRACE	0.4
ARGON	TRACE	0.0	TRACE
HYDROGEN	TRACE	0.0	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.2	0.2
HELIUM	0.10	0.07	0.04
HEATING VALUE*	1036	1175	1342
SPECIFIC GRAVITY	0.741	0.738	0.811

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 304 SAMPLE 17795	INDEX 305 SAMPLE 16647	INDEX 306 SAMPLE 17602
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	LOGAN	LOGAN	MAJOR
FIELD	GUTHRIE NE	LANGSTON S	BADO E
WELL NAME	WHITELEY NO. 1-32	KNIGHTLINGER NO. 1	CLASSEN A NO. 4
LOCATION	SEC. 32, T17N, R1W	SEC. 5, T16N, R1E	SEC. 9, T20N, R14W
OWNER	BLUE QUAIL OIL & GAS, INC.	WIL-MC OIL CORP.	TXO PRODUCTION CORP.
COMPLETED	04/11/85	03/14/82	03/21/83
SAMPLED	08/02/85	09/03/82	02/26/85
FORMATION	PENN-HOOVER	PENN-LAYTON	DEVO-HUNTON
GEOLOGIC PROVINCE CODE	355	355	360
DEPTH, FEET	2315	3745	9290
WELLHEAD PRESSURE,PSIG	965	1050	2900
OPEN FLOW, MCFD	2766	1176	1750
COMPONENT, MOLE PCT			
METHANE	67.8	79.7	89.9
ETHANE	5.9	7.8	5.4
PROPANE	4.0	3.7	1.7
N-BUTANE	1.6	1.2	0.5
ISOBUTANE	0.6	0.5	0.1
N-PENTANE	0.5	0.3	0.2
ISOPENTANE	0.4	0.3	0.1
CYCLOPENTANE	0.1	0.1	TRACE
HEXANES PLUS	0.3	0.2	0.1
NITROGEN	18.3	5.9	1.6
OXYGEN	TRACE	TRACE	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	TRACE	0.1	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.1	0.2
HELIUM	0.26	0.06	0.04
HEATING VALUE*	1028	1140	1090
SPECIFIC GRAVITY	0.758	0.699	0.623

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 307 SAMPLE 17604	INDEX 308 SAMPLE 17071	INDEX 309 SAMPLE 17776
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	MAJOR	MCCLAIN	MCINTOSH
FIELD	BADO E	WASHINGTON DISTRICT	HITCHITA NE
WELL NAME	DYE "A" NO. 1	LESLIE NO. 2	BROTTON NO. 1
LOCATION	SEC. 4, T20N, R14W	SEC. 3, T7N, R4W	SEC. 16, T12N, R15E
OWNER	TXO PRODUCTION CORP.	MONSANTO OIL CO.	MOFFITT, W.G.
COMPLETED	11/20/83	05/09/83	01/24/85
SAMPLED	02/26/85	09/26/83	--/--/00
FORMATION	PENN-& MISS	PENN-OSBORNE	PENN-GILCREASE
GEOLOGIC PROVINCE CODE	360	355	355
DEPTH, FEET	8370	9452	2010
WELLHEAD PRESSURE,PSIG	2450	1791	396
OPEN FLOW, MCFD	3500	1231	3231
COMPONENT, MOLE PCT			
METHANE	86.7	83.1	83.5
ETHANE	6.5	7.4	8.7
PROPANE	3.0	3.3	3.1
N-BUTANE	1.1	1.3	0.8
ISOBUTANE	0.5	0.5	0.4
N-PENTANE	0.3	0.3	0.2
ISOPENTANE	0.2	0.8	0.2
CYCLOPENTANE	0.1	0.1	0.1
HEXANES PLUS	0.2	0.3	0.3
NITROGEN	1.1	2.0	2.2
OXYGEN	TRACE	0.2	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	TRACE	0.3	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.3	0.5	0.2
HELIUM	0.03	0.06	0.13
HEATING VALUE*	1162	1188	1159
SPECIFIC GRAVITY	0.665	0.695	0.673

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 310 SAMPLE 17669	INDEX 311 SAMPLE 17702	INDEX 312 SAMPLE 17751
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	NOBLE	NOBLE	OKFUSKEE
FIELD	BILLINGS TOWNSITE	GREEN VALLEY E	BLAKELY
WELL NAME	ELDEN C. GERKIN NO. 1	VEDA NO. 1	WOODS NO. 1
LOCATION	SEC. 32, T24N, R2W	SEC. 20, T22N, R2W	SEC. 1, T11N, R10E
OWNER	HEXAGON OIL & GAS, INC.	MACKELLAR, INC.	EAGLE OIL CO.
COMPLETED	06/09/84	01/10/85	02/11/85
SAMPLED	05/15/85	06/10/85	07/11/85
FORMATION	MISS-CHAT	PENN-RED FORK	PENN-DUTCHER L
GEOLOGIC PROVINCE CODE	355	355	355
DEPTH, FEET	4577	4812	3009
WELLHEAD PRESSURE,PSIG	445	1363	950
OPEN FLOW, MCFD	436	3611	1000
COMPONENT, MOLE PCT			
METHANE	79.5	69.9	69.4
ETHANE	7.9	10.0	11.9
PROPANE	3.3	4.6	5.9
N-BUTANE	1.5	1.1	1.9
ISOBUTANE	0.4	0.4	0.6
N-PENTANE	0.3	0.4	0.6
ISOPENTANE	0.3	0.1	0.5
CYCLOPENTANE	0.1	0.1	0.2
HEXANES PLUS	0.3	0.3	0.6
NITROGEN	5.5	12.6	7.1
OXYGEN	0.2	0.1	0.8
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	TRACE	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.4	0.3	0.2
HELIUM	0.18	0.05	0.11
HEATING VALUE*	1142	1098	1239
SPECIFIC GRAVITY	0.702	0.747	0.784

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 313 SAMPLE 17877	INDEX 314 SAMPLE 17641	INDEX 315 SAMPLE 17809
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	OKLAHOMA	OKLAHOMA	OKLAHOMA
FIELD	CAPTAIN CREEK	COON CREEK NW	EDMOND NE
WELL NAME	STOVER NO. 12-1	WOOD NO. 1-5	BROYLES NO. 2-A
LOCATION	SEC. 12, T13N, R1E	SEC. 5, T14N, R1W	SEC. 28, T14N, R2W
OWNER	101 ENERGY CORP.	SCOUT ENERGY CORP.	HARPER OIL CO.
COMPLETED	03/02/85	09/21/84	02/11/85
SAMPLED	10/25/85	04/08/85	08/16/85
FORMATION	PENN-OSWEGO	PENN-CHECKERBOARD	MIOC-UNCONFORMITY
GEOLOGIC PROVINCE CODE	355	355	355
DEPTH, FEET	4848	4730	6159
WELLHEAD PRESSURE,PSIG	1750	1160	1287
OPEN FLOW, MCFD	600	1500	1500
COMPONENT, MOLE PCT			
METHANE	82.1	82.8	82.5
ETHANE	8.1	9.2	8.4
PROPANE	3.5	4.0	3.8
N-BUTANE	1.3	1.3	1.3
ISOBUTANE	0.4	0.4	0.4
N-PENTANE	0.5	0.5	0.4
ISOPENTANE	0.1	TRACE	0.3
CYCLOPENTANE	0.3	0.1	0.2
HEXANES PLUS	0.6	0.2	0.4
NITROGEN	2.3	1.3	2.1
OXYGEN	0.2	TRACE	TRACE
ARGON	0.0	0.0	0.0
HYDROGEN	0.0	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.4	0.2	0.2
HELIUM	0.05	TRACE	0.10
HEATING VALUE*	1193	1200	1200
SPECIFIC GRAVITY	0.701	0.690	0.698

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 316 SAMPLE 17825	INDEX 317 SAMPLE 17892	INDEX 318 SAMPLE 17853
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	OKLAHOMA	OKLAHOMA	OKLAHOMA
FIELD	EDMOND NE	OKLAHOMA CITY	OKLAHOMA CITY
WELL NAME	LOOF BOURROW NO. 2	MAXEY NO. 1-34	MAXEY NO. 1-34
LOCATION	SEC. 1, T14N, R2W	SEC. 34, T11N, R3W	SEC. 34, T11N, R3W
OWNER	CLIFFORD RESOURCES	OEXCO, INC.	OEXCO, INC.
COMPLETED	06/04/85	12/12/84	12/12/84
SAMPLED	09/04/85	11/06/85	11/06/85
FORMATION	PENN-CHECKERBOARD	PENN-PRUE	ORDO-VIOLA
GEOLOGIC PROVINCE CODE	355	355	355
DEPTH, FEET	4995	6664	6828
WELLHEAD PRESSURE,PSIG	1100	1061	1061
OPEN FLOW, MCFD	1850	1140	1140
COMPONENT, MOLE PCT			
METHANE	81.9	85.0	77.3
ETHANE	8.2	6.9	6.3
PROPANE	3.8	3.0	2.8
N-BUTANE	1.3	1.3	1.2
ISOBUTANE	0.4	0.3	0.2
N-PENTANE	0.4	0.7	0.8
ISOPENTANE	0.3	0.2	0.2
CYCLOPENTANE	0.1	0.2	0.2
HEXANES PLUS	0.3	0.6	0.7
NITROGEN	3.1	1.4	8.0
OXYGEN	0.0	0.0	1.8
ARGON	0.0	0.0	0.1
HYDROGEN	TRACE	TRACE	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.4	0.3
HELIUM	0.05	0.04	0.04
HEATING VALUE*	1182	1193	1102
SPECIFIC GRAVITY	0.695	0.688	0.721

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 319 SAMPLE 17554	INDEX 320 SAMPLE 17671	INDEX 321 SAMPLE 17691
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	OKLAHOMA	OKMULGEE	OKMULGEE
FIELD	PRAIRIE BELL EAST	HAMILTON SWITCH	HAMILTON SWITCH
WELL NAME	SHANBOUR NO. 1	DOUGLAS NO. 1-9	HULL NO. 9
LOCATION	SEC. 8, T14N, R3W	SEC. 9, T14N, R13E	SEC. 29, T15N, R13E
OWNER	XAE CORP.	DILCO OIL & GAS PROPERTIES	J. J. HULL, JR.
COMPLETED	08/24/84	04/06/83	04/08/84
SAMPLED	12/31/84	05/16/85	05/29/85
FORMATION	PENN-PRUE	PENN-BOOCH	PENN-DUTCHER
GEOLOGIC PROVINCE CODE	355	355	355
DEPTH, FEET	5957	1558	1945
WELLHEAD PRESSURE,PSIG	2100	400	300
OPEN FLOW, MCFD	770	118	425
COMPONENT, MOLE PCT			
METHANE	83.9	89.6	70.8
ETHANE	7.4	3.9	12.2
PROPANE	3.4	1.2	7.4
N-BUTANE	1.0	0.3	2.6
ISOBUTANE	0.4	0.1	0.9
N-PENTANE	0.2	0.1	0.6
ISOPENTANE	0.3	TRACE	0.8
CYCLOPENTANE	0.1	TRACE	0.4
HEXANES PLUS	0.3	0.1	0.7
NITROGEN	2.6	4.4	3.2
OXYGEN	0.1	0.1	0.0
ARGON	TRACE	TRACE	0.0
HYDROGEN	TRACE	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.2	0.2	0.2
HELIUM	0.06	0.02	0.07
HEATING VALUE*	1158	1032	1357
SPECIFIC GRAVITY	0.678	0.617	0.808

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 322 SAMPLE 17694	INDEX 323 SAMPLE 16630	INDEX 324 SAMPLE 17658
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	OKMULGEE	PITTSBURG	PITTSBURG
FIELD	HAMILTON SWITCH	BREWER S	KIOWA S
WELL NAME	HENTHORNE NO. 2	BOARDWALK NO. 1	SISCO NO. 1
LOCATION	SEC. 33, T15N, R13E	SEC. 7, T4N, R15E	SEC. 31, T3N, R14E
OWNER	J. J. HULL, JR.	SAMSON RESOURCES CO.	SAMSON RESOURCES CO.
COMPLETED	--/--/00	02/16/82	07/28/84
SAMPLED	05/29/85	08/30/82	05/01/85
FORMATION	PENN-DUTCHER	PENN-ATOKA	PENN-WAPANUCKA
GEOLOGIC PROVINCE CODE	355	345	345
DEPTH, FEET	1940	8362	10371
WELLHEAD PRESSURE,PSIG	275	3000	2200
OPEN FLOW, MCFD	330	6500	4000
COMPONENT, MOLE PCT			
METHANE	58.6	95.3	96.3
ETHANE	12.5	2.0	1.0
PROPANE	14.4	0.3	0.1
N-BUTANE	5.4	0.1	0.0
ISOBUTANE	2.2	0.0	0.0
N-PENTANE	1.0	TRACE	0.0
ISOPENTANE	1.9	TRACE	0.0
CYCLOPENTANE	0.5	TRACE	0.0
HEXANES PLUS	1.2	TRACE	0.0
NITROGEN	2.0	0.6	0.5
OXYGEN	0.0	0.1	0.0
ARGON	0.0	TRACE	0.0
HYDROGEN	0.0	0.1	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.2	1.4	2.1
HELIUM	0.03	0.03	0.04
HEATING VALUE*	1652	1013	996
SPECIFIC GRAVITY	0.980	0.584	0.583

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 325 SAMPLE 17648	INDEX 326 SAMPLE 17739	INDEX 327 SAMPLE 17856
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	PITTSBURG	ROGER MILLS	ROGER MILLS
FIELD	PATRICK	BERLIN N	CARPENTER W
WELL NAME	FISHER NO. 1	KENNER NO. 1-30	JOY TAYLOR NO. 1
LOCATION	SEC. 1, 68N, R16E	SEC. 30, T12N, R23W	SEC. 25, T12N, R13W
OWNER	BILL O. ANDRESS	BRACKEN EXPLORATION CO.	EL PASO EXPLORATION CO.
COMPLETED	06/25/84	04/12/85	11/01/84
SAMPLED	04/19/85	--/--/00	10/07/85
FORMATION	PENN-CROMWELL	PENN-MORROW	PENN-MORROW U
GEOLOGIC PROVINCE CODE	345	360	360
DEPTH, FEET	5461	18421	17378
WELLHEAD PRESSURE,PSIG	784	13030	12500
OPEN FLOW, MCFD	2503	2700	6146
COMPONENT, MOLE PCT			
METHANE	94.8	96.3	97.3
ETHANE	0.0	0.4	0.5
PROPANE	0.0	TRACE	TRACE
N-BUTANE	0.0	0.0	0.0
ISOBUTANE	0.0	0.0	0.0
N-PENTANE	0.0	0.0	0.0
ISOPENTANE	0.0	0.0	0.0
CYCLOPENTANE	0.0	0.0	0.0
HEXANES PLUS	0.0	0.0	0.0
NITROGEN	2.5	0.6	0.2
OXYGEN	TRACE	TRACE	0.0
ARGON	TRACE	0.0	TRACE
HYDROGEN	0.0	TRACE	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	2.6	2.6	2.0
HELIUM	0.06	0.01	0.02
HEATING VALUE*	960	983	995
SPECIFIC GRAVITY	0.590	0.584	0.577

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 328 SAMPLE 17622	INDEX 329 SAMPLE 16381	INDEX 330 SAMPLE 17828
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	ROGER MILLS	ROGER MILLS	ROGER MILLS
FIELD	CHEYENNE	DEMPSEY	DEMPSEY SE
WELL NAME	WILLIAMS NO. 1	PENNINGTON THOMPSON NO. 1	ARMSTRONG NO. 1-14
LOCATION	SEC. 26, T12N, R23W	SEC. 1, T12N, R25W	SEC. 14, T12N, R24W
OWNER	EL PASO EXPLORATION CO.	AMAREX, INC.	SOHIO PETROLEUM CO.
COMPLETED	03/08/84	09/17/81	10/05/84
SAMPLED	03/19/85	11/18/81	09/10/85
FORMATION	PENN-MORROW	PENN-MORROW	PENN-MORROW U
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	17256	14857	17200
WELLHEAD PRESSURE,PSIG	11576	14000	13800
OPEN FLOW, MCFD	2096	37750	11970
COMPONENT, MOLE PCT			
METHANE	97.2	97.6	97.4
ETHANE	0.5	0.5	0.3
PROPANE	TRACE	0.1	TRACE
N-BUTANE	0.0	0.0	0.0
ISOBUTANE	0.0	0.0	0.0
N-PENTANE	0.0	0.0	0.0
ISOPENTANE	0.0	0.0	0.0
CYCLOPENTANE	0.0	0.0	0.0
HEXANES PLUS	0.0	0.0	0.0
NITROGEN	0.3	0.2	0.3
OXYGEN	TRACE	0.0	0.1
ARGON	TRACE	TRACE	0.0
HYDROGEN	0.0	TRACE	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	1.9	1.6	1.8
HELIUM	0.01	0.02	0.01
HEATING VALUE*	994	1000	992
SPECIFIC GRAVITY	0.576	0.574	0.575

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 331 SAMPLE 16186	INDEX 332 SAMPLE 17472	INDEX 333 SAMPLE 16240
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	ROGER MILLS	ROGER MILLS	ROGER MILLS
FIELD	LEEDEY SW	ROLL NE	STRONG CITY
WELL NAME	SWITZER "C" NO. 5-1	MARTIN NO. 1	SUMMERS NO. 1
LOCATION	SEC. 5, T15N, R21W	SEC. 1, T15N, R24W	SEC. 13, T14N, R23W
OWNER	WOODS PETROLEUM CORP.	ANDERMAN SMITH OPERATING CO.	WOODS PETROLEUM CORP.
COMPLETED	03/31/80	05/03/84	01/23/80
SAMPLED	02/18/81	10/09/84	04/21/81
FORMATION	PENN-RED FORK	PENN-RED FORK	PENN-RED FORK
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	11450	12071	12587
WELLHEAD PRESSURE,PSIG	6784	3400	4222
OPEN FLOW, MCFD	40398	175	2020
COMPONENT, MOLE PCT			
METHANE	77.2	82.1	91.0
ETHANE	8.2	7.6	4.9
PROPANE	4.7	2.4	0.9
N-BUTANE	2.4	0.4	0.1
ISOBUTANE	1.5	0.5	0.2
N-PENTANE	1.6	0.1	TRACE
ISOPENTANE	1.8	0.2	0.1
CYCLOPENTANE	0.2	0.1	0.1
HEXANES PLUS	1.0	0.1	0.1
NITROGEN	0.5	TRACE	0.9
OXYGEN	TRACE	TRACE	0.1
ARGON	0.0	TRACE	TRACE
HYDROGEN	0.0	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.8	6.5	1.5
HELIUM	0.02	0.02	0.02
HEATING VALUE*	1386	1082	1056
SPECIFIC GRAVITY	0.804	0.703	0.617

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 334 SAMPLE 17675	INDEX 335 SAMPLE 17890	INDEX 336 SAMPLE 16614
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	SEMINOLE	SEMINOLE	TEXAS
FIELD	KONAWA-DORA	WOFFORD S	DOMBEY W
WELL NAME	DOSAR NO. 1	GAINES NO. 2	MIRES NO. 1-30
LOCATION	SEC. 14, T6N, R5E	SEC. 20, T6N, R7E	SEC. 30, T4N, R19ECM
OWNER	JAY PETROLEUM, INC.	TNT ROYALTY CO.	SENECA OIL CO.
COMPLETED	12/04/84	03/15/83	04/24/82
SAMPLED	05/14/85	11/02/85	08/10/82
FORMATION	PENN-EARLSBORO	PENN-SENORA U	PENN-MORROW
GEOLOGIC PROVINCE CODE	355	355	360
DEPTH, FEET	2780	1850	6579
WELLHEAD PRESSURE,PSIG	1000	100	1510
OPEN FLOW, MCFD	2100	150	1570
COMPONENT, MOLE PCT			
METHANE	66.5	62.8	82.6
ETHANE	4.6	7.6	5.5
PROPANE	3.4	7.4	4.7
N-BUTANE	1.1	4.3	1.5
ISOBUTANE	0.3	1.0	0.7
N-PENTANE	0.3	2.0	0.3
ISOPENTANE	0.2	0.9	0.4
CYCLOPENTANE	0.1	0.4	0.1
HEXANES PLUS	0.2	1.2	0.2
NITROGEN	23.0	12.0	3.2
OXYGEN	0.1	TRACE	TRACE
ARGON	TRACE	0.0	TRACE
HYDROGEN	0.0	TRACE	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.3	0.4
HELIUM	0.19	0.08	0.16
HEATING VALUE*	927	1344	1176
SPECIFIC GRAVITY	0.745	0.892	0.698

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 337 SAMPLE 17728	INDEX 338 SAMPLE 17883	INDEX 339 SAMPLE 17674
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	TEXAS	WAGONER	WASHITA
FIELD	DOMBEY W	BROKEN ARROW DIST.	BRAITHWAITE
WELL NAME	RICHARDS NO. 1-14	PETERSON NO. 2	MURRAY NO. 1-19
LOCATION	SEC.14, T3N, R19ECM	SEC. 4, T17N, R15E	SEC. 19, T11N, R18W
OWNER	SENECO OIL CO.	SHIELDS, COOPER	AN-SON CORP.
COMPLETED	11/03/84	10/01/83	02/08/85
SAMPLED	06/27/85	--/--/00	05/17/85
FORMATION	PENN-MORROW L & MISS-CHESTER	PENN-DUTCHER	PENN-GRANITE WASH
GEOLOGIC PROVINCE CODE	360	355	360
DEPTH, FEET	6864	1180	12454
WELLHEAD PRESSURE,PSIG	1290	NOT GIVEN	5800
OPEN FLOW, MCFD	4712	400	2360
COMPONENT, MOLE PCT			
METHANE	83.6	67.9	81.5
ETHANE	5.5	10.7	9.9
PROPANE	3.7	8.0	4.5
N-BUTANE	1.2	3.0	1.3
ISOBUTANE	0.5	0.6	0.4
N-PENTANE	0.3	1.1	0.3
ISOPENTANE	0.4	0.6	0.4
CYCLOPENTANE	0.2	0.4	0.1
HEXANES PLUS	0.5	0.8	0.3
NITROGEN	2.1	6.7	0.9
OXYGEN	0.1	TRACE	TRACE
ARGON	0.0	TRACE	TRACE
HYDROGEN	TRACE	TRACE	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	1.6	0.2	0.4
HELIUM	0.03	0.11	0.01
HEATING VALUE*	1162	1337	1226
SPECIFIC GRAVITY	0.697	0.832	0.705

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 340 SAMPLE 17562	INDEX 341 SAMPLE 16266	INDEX 342 SAMPLE 17666
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	WASHITA	WASHITA	WOODS
FIELD	BURNS FLAT	CORN NE	FREEDOM N
WELL NAME	JUANITA NO. 1-34	KATIE NO. 1	GERLOFF NO. 2
LOCATION	SEC. 34, T10N, R18W	SEC. 11, T11N, R15W	SEC. 13, T27N, R18W
OWNER	AN-SON CORP.	AMERICAN QUASAR PET. CO.	TXO PRODUCTION CORP.
COMPLETED	05/09/84	12/31/80	01/28/85
SAMPLED	01/08/85	05/18/81	05/12/85
FORMATION	PENN-MORROW	PENN-SPRINGER	PENN-& MISS COMMINGLED
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	15485	15348	4786
WELLHEAD PRESSURE,PSIG	5300	11200	1645
OPEN FLOW, MCFD	2170	7000	3580
COMPONENT, MOLE PCT			
METHANE	96.1	96.6	85.8
ETHANE	2.2	1.1	4.6
PROPANE	0.4	0.2	3.1
N-BUTANE	0.0	TRACE	1.3
ISOBUTANE	0.0	TRACE	0.5
N-PENTANE	0.0	0.0	0.5
ISOPENTANE	0.0	TRACE	0.2
CYCLOPENTANE	0.0	TRACE	0.3
HEXANES PLUS	0.0	0.1	0.5
NITROGEN	0.3	0.5	2.9
OXYGEN	0.0	0.1	0.1
ARGON	TRACE	TRACE	0.0
HYDROGEN	0.0	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.9	1.2	0.2
HELIUM	0.02	0.02	0.11
HEATING VALUE*	1023	1009	1160
SPECIFIC GRAVITY	0.579	0.577	0.681

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H_2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 343 SAMPLE 17927	INDEX 344 SAMPLE 17567	INDEX 345 SAMPLE 17584
STATE	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY	WOODS	WOODS	WOODWARD
FIELD	ROSCOE	WAYNOKA SE	QUINLAN
WELL NAME	FARMERS ROYALTY NO. A-1	JOHN HULL NO. 2	MADDUX NO. 1-10
LOCATION	SEC. 10, T22N, R13W	SEC. 35, T24N, R15W	SEC. 10, T24N, R18W
OWNER	ANADARKO PETROLEUM CORP.	MAGIC CIRCLE ENERGY CORP.	SHAR-ALAN OIL CO.
COMPLETED	08/15/85	08/05/83	05/30/84
SAMPLED	12/09/85	01/15/85	02/05/85
FORMATION	MISS-MERAMEC	PENN-& MISS	MISS-CHESTER
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	7160	6670	6694
WELLHEAD PRESSURE,PSIG	2050	1610	1150
OPEN FLOW, MCFD	1250	7400	100
COMPONENT, MOLE PCT			
METHANE	83.5	92.3	92.3
ETHANE	6.9	3.3	2.9
PROPANE	3.3	1.3	1.0
N-BUTANE	1.4	0.5	0.3
ISOBUTANE	0.4	0.2	0.2
N-PENTANE	1.0	0.2	0.1
ISOPENTANE	0.2	0.2	0.1
CYCLOPENTANE	0.6	0.1	TRACE
HEXANES PLUS	1.4	0.3	0.2
NITROGEN	1.1	1.3	2.1
OXYGEN	0.1	TRACE	0.4
ARGON	0.0	TRACE	TRACE
HYDROGEN	0.0	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.2	0.4	0.4
HELIUM	0.04	0.05	0.05
HEATING VALUE*	1261	1088	1049
SPECIFIC GRAVITY	0.725	0.621	0.610

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 346 SAMPLE 16996	INDEX 347 SAMPLE 17650	INDEX 348 SAMPLE 17661
STATE	OKLAHOMA	PENNSYLVANIA	PENNSYLVANIA
COUNTY	WOODWARD	CAMBRIA	ERIE
FIELD	WOODWARD NE	POT RIDGE PROSPECT	ERIE
WELL NAME	RUTLEDGE NO. 1	CAMBRIA MINING NO. 1	MITCHELL NO. 1
LOCATION	SEC. 25, T24N, R20W	OGLETON QUAD ADAMS TWP.	SEC. C. CAMBRIDGE SPG. QUAD
OWNER	H & L OPERATING CO.	DAMSON OIL CO.	NRM PETROLEUM CORP.
COMPLETED	05/28/81	--/--/00	10/11/83
SAMPLED	04/15/82	04/21/85	05/01/85
FORMATION	PENN-MORROW	DEVO-ORISKANY	DEVO-ORISKANY
GEOLOGIC PROVINCE CODE	360	160	160
DEPTH, FEET	7466	9000	2380
WELLHEAD PRESSURE,PSIG	3200	3300	650
OPEN FLOW, MCFD	2056	2300	4108
COMPONENT, MOLE PCT			
METHANE	93.7	97.8	78.1
ETHANE	3.1	1.2	10.2
PROPANE	1.1	0.1	4.2
N-BUTANE	0.3	0.0	1.6
ISOBUTANE	0.2	0.0	0.0
N-PENTANE	0.1	0.0	0.6
ISOPENTANE	0.1	0.0	0.0
CYCLOPENTANE	0.1	0.0	0.2
HEXANES PLUS	0.1	0.0	0.5
NITROGEN	0.8	0.7	4.0
OXYGEN	0.1	0.1	0.0
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	0.1	0.2
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.3	TRACE	0.0
HELIUM	0.08	0.03	0.21
HEATING VALUE*	1068	1015	1196
SPECIFIC GRAVITY	0.603	0.564	0.712

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 349 SAMPLE 17258	INDEX 350 SAMPLE 17838	INDEX 351 SAMPLE 17525
STATE	PENNSYLVANIA	PENNSYLVANIA	PENNSYLVANIA
COUNTY	VENANGO	WARREN	WESTMORELAND
FIELD	KANTZ CORNERS	COLORADO	SEVEN SPRINGS
WELL NAME	PA GLASS SAND CO. NO. 1-S	RENSMA STEPHENS NO. 1	ELEANOR G MORRIS NO. 1
LOCATION	CANAL TWP.	SOUTHWEST QUAD, 41D 40M, 79D	DONEGAL TOWNSHIP
OWNER	CABOT OIL & GAS CORP.	QUAKER STATE OIL REF. CORP.	PEOPLES NATURAL GAS CO.
COMPLETED	04/16/84	02/03/84	08/03/82
SAMPLED	04/16/84	09/16/85	--/--/00
FORMATION	SILU-MEDINA	SILU-MEDINA, WHIRLPOOL	DEVO-ORISKANY
GEOLOGIC PROVINCE CODE	160	160	160
DEPTH, FEET	5640	5692	7658
WELLHEAD PRESSURE,PSIG	1282	1450	2240
OPEN FLOW, MCFD	530	1750	4000
COMPONENT, MOLE PCT			
METHANE	91.6	92.2	97.5
ETHANE	4.1	3.9	1.6
PROPANE	0.6	0.5	0.1
N-BUTANE	0.2	0.2	0.0
ISOBUTANE	TRACE	0.0	0.0
N-PENTANE	0.1	0.1	0.0
ISOPENTANE	TRACE	0.0	0.0
CYCLOPENTANE	TRACE	TRACE	0.0
HEXANES PLUS	0.1	0.1	0.0
NITROGEN	3.1	2.7	0.6
OXYGEN	TRACE	0.1	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	TRACE	TRACE	0.1
HELIUM	0.08	0.01	0.03
HEATING VALUE*	1033	1033	1019
SPECIFIC GRAVITY	0.600	0.597	0.566

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 352 SAMPLE 17526	INDEX 353 SAMPLE 17611	INDEX 354 SAMPLE 16523
STATE	PENNSYLVANIA	TENNESSEE	TENNESSEE
COUNTY	WESTMORELAND	CLAIBORNE	MORGAN
FIELD	WILPEN	BUFFALO CREEK	NOT GIVEN
WELL NAME	ARNOLD F. FREDERICK NO. 1	SMITH-TEAGUE, ET AL NO. 1	LEE GRIFFITH NO. 2
LOCATION	LIGONIER	SEC. 4, TAN, R67E	SEC. 21, T4S, R59E
OWNER	PEOPLES NATURAL GAS CO.	WISER OIL CO.	TARTAN OIL CO.
COMPLETED	02/22/82	09/23/83	10/07/81
SAMPLED	--/--/00	03/06/85	04/22/82
FORMATION	DEVO-BALLTOWN & BRADFORD	MISS-MONTEAGLE	MISS-MONTEAGLE
GEOLOGIC PROVINCE CODE	160	160	160
DEPTH, FEET	3923	1836	1532
WELLHEAD PRESSURE,PSIG	1300	721	530
OPEN FLOW, MCFD	411	523000	850
COMPONENT, MOLE PCT			
METHANE	94.9	78.6	79.2
ETHANE	2.3	10.5	11.1
PROPANE	0.1	4.1	4.2
N-BUTANE	0.1	1.1	1.0
ISOBUTANE	0.0	0.4	0.4
N-PENTANE	TRACE	0.2	0.2
ISOPENTANE	TRACE	0.3	0.2
CYCLOPENTANE	TRACE	TRACE	0.1
HEXANES PLUS	0.1	0.1	0.1
NITROGEN	1.8	4.2	2.2
OXYGEN	0.3	0.1	0.0
ARGON	0.0	TRACE	TRACE
HYDROGEN	0.1	0.4	1.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	TRACE	0.1
HELIUM	0.10	0.10	0.13
HEATING VALUE*	1014	1169	1187
SPECIFIC GRAVITY	0.579	0.698	0.689

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 355 SAMPLE 17840	INDEX 356 SAMPLE 17837	INDEX 357 SAMPLE 17659
STATE	TENNESSEE	TENNESSEE	TENNESSEE
COUNTY	OVERTON	OVERTON	SCOTT
FIELD	FLAT ROCK	LIVINGSTON QUAD	REUBEN HOLLOW
WELL NAME	K & M POSTON NO. 1	HOLMAN NO. 3-A	LUTHIE NO. 1
LOCATION	SEC. 21, T2S, R50E	SEC. 16, T1S, R51E	SEC. 4, T3S, R60E
OWNER	POSTON & POSTON DRILLING CO.	POSTON & POSTON DRILLING CO.	BRADY ENERGY CORP.
COMPLETED	--/--/00	08/--/84	03/02/81
SAMPLED	09/25/85	09/--/85	05/03/85
FORMATION	ORDO-SUNNYBROOK	ORDO-TRENTON	MISS-MONTEAGLE
GEOLOGIC PROVINCE CODE	300	300	160
DEPTH, FEET	800	400	1549
WELLHEAD PRESSURE,PSIG	NOT GIVEN	NOT GIVEN	50
OPEN FLOW, MCFD	50	NOT GIVEN	30
COMPONENT, MOLE PCT			
METHANE	79.6	69.2	68.1
ETHANE	11.1	8.3	15.1
PROPANE	4.1	4.5	8.8
N-BUTANE	1.0	1.5	2.3
ISOBUTANE	0.2	0.6	0.7
N-PENTANE	0.2	0.5	0.5
ISOPENTANE	0.1	0.3	0.3
CYCLOPENTANE	0.1	0.2	0.1
HEXANES PLUS	0.1	0.5	0.2
NITROGEN	3.0	12.1	3.1
OXYGEN	0.1	1.9	0.1
ARGON	TRACE	0.1	0.0
HYDROGEN	0.1	0.1	0.5
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	TRACE	0.1
HELIUM	0.13	0.17	0.19
HEATING VALUE*	1174	1105	1340
SPECIFIC GRAVITY	0.691	0.764	0.797

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 358 SAMPLE 16300	INDEX 359 SAMPLE 17908	INDEX 360 SAMPLE 17203
STATE	TEXAS	TEXAS	TEXAS
COUNTY	ANGELINA	BEE	BRAZOS
FIELD	REDLANDS N	ROLLEM	BRYAN
WELL NAME	BROWN "C" NO. 1	D. F. MEYER NO. 1	HARPER NO. 1
LOCATION	VINCENTI MICHELT SUR. A-29	MARY CARROLL SUR., A-11	S. F. AUSTIN SUR., A-62
OWNER	COTTON PETROLEUM CORP.	ARCO OIL & GAS CO.	MCMURREY PETROLEUM CO., INC.
COMPLETED	--/--/00	04/--/85	05/--/83
SAMPLED	07/31/81	11/11/85	02/10/84
FORMATION	CRET-TRAVIS PEAK	CAMB-REAGAN 1ST	CRET-WOODBINE
GEOLOGIC PROVINCE CODE	260	220	220
DEPTH, FEET	NOT GIVEN	12173	8300
WELLHEAD PRESSURE,PSIG	5700	6125	850
OPEN FLOW, MCFD	8500	5351	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE	97.3	81.0	74.0
ETHANE	0.6	8.0	12.0
PROPANE	0.1	2.3	7.1
N-BUTANE	0.1	0.6	1.9
ISOBUTANE	0.1	0.5	0.7
N-PENTANE	0.1	0.4	0.3
ISOPENTANE	0.0	0.1	0.4
CYCLOPENTANE	0.1	0.2	0.1
HEXANES PLUS	0.2	0.7	0.1
NITROGEN	0.3	TRACE	0.9
OXYGEN	TRACE	0.0	TRACE
ARGON	TRACE	0.0	TRACE
HYDROGEN	TRACE	TRACE	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	1.1	6.1	2.5
HELIUM	0.01	TRACE	0.01
HEATING VALUE*	1024	1125	1275
SPECIFIC GRAVITY	0.582	0.723	0.770

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 361 SAMPLE 17204	INDEX 362 SAMPLE 17844	INDEX 363 SAMPLE 16933
STATE	TEXAS	TEXAS	TEXAS
COUNTY	BRAZOS	CALHOUN	CALLAHAN
FIELD	BRYAN	LAVACA BAY	LAURA MAE HILL
WELL NAME	AUSTIN HIGH SCHOOL NO. 1	STATE TRACT 39 NO. 3	WINDHAM NO. 3
LOCATION	S. F. AUSTIN SUR., A-62	STATE TRACT 39	GEORGE HANCOCK SUR.342,A-245
OWNER	MCMURREY PETROLEUM CO., INC.	NEUMIN PRODUCTION CO.	LE CLAIR OPERATING CO., INC.
COMPLETED	05/--/83	11/25/84	05/16/83
SAMPLED	02/10/84	09/24/85	05/15/83
FORMATION	CRET-WOODBINE	OLIG-FRIO F-40A	ORDO-ELLENBURGER
GEOLOGIC PROVINCE CODE	220	220	425
DEPTH, FEET	NOT GIVEN	10400	4370
WELLHEAD PRESSURE,PSIG	NOT GIVEN	3900	1425
OPEN FLOW, MCFD	NOT GIVEN	3250	15100
COMPONENT, MOLE PCT			
METHANE	71.2	87.3	68.4
ETHANE	12.9	6.1	9.0
PROPANE	7.9	2.7	5.2
N-BUTANE	2.1	0.7	1.4
ISOBUTANE	0.7	0.7	0.5
N-PENTANE	0.3	0.2	0.3
ISOPENTANE	0.5	0.2	0.4
CYCLOPENTANE	0.1	0.1	0.1
HEXANES PLUS	0.2	0.3	0.2
NITROGEN	1.5	0.4	12.1
OXYGEN	0.2	0.0	TRACE
ARGON	TRACE	0.0	0.1
HYDROGEN	0.0	TRACE	0.2
HYDROGEN SULFIDE**	0.0	0.0	0.2
CARBON DIOXIDE	2.4	1.2	1.4
HELIUM	0.01	TRACE	0.47
HEATING VALUE*	1300	1147	1099
SPECIFIC GRAVITY	0.793	0.662	0.763

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 364 SAMPLE 17562	INDEX 365 SAMPLE 17716	INDEX 366 SAMPLE 17929
STATE	TEXAS	TEXAS	TEXAS
COUNTY	CHAMBERS	CHEROKEE	COLEMAN
FIELD	BAY ROAD	OVERTON	LAKE NOVICE
WELL NAME	U.S. STEEL NO. B-1	W. L. RUCKER NO. 1	RAY PARKER NO. 1
LOCATION	JOHN STEELE SUR. A-227	WILLIAM GEORGE SUR., A-295	SEC. 31, BLK. 2, T&NO SUR.,
OWNER	MICHEL T. HALBOUTY ENERGY CO	EXXON CO., U.S.A.	HRUBETZ OIL CO.
COMPLETED	11/20/83	--/--/00	11/12/83
SAMPLED	05/05/85	06/14/85	12/11/85
FORMATION	OLIG-VICKSBURG L	JURA-COTTON VALLEY	CRET-GARDNER
GEOLOGIC PROVINCE CODE	220	260	425
DEPTH, FEET	10784	10361	3687
WELLHEAD PRESSURE,PSIG	5500	3400	200
OPEN FLOW, MCFD	27000	1220	2601
COMPONENT, MOLE PCT			
METHANE	86.0	92.6	67.6
ETHANE	6.7	3.2	8.9
PROPANE	3.9	0.6	6.6
N-BUTANE	0.9	0.2	2.7
ISOBUTANE	0.6	0.2	0.7
N-PENTANE	0.2	0.2	1.2
ISOPENTANE	0.1	0.0	0.6
CYCLOPENTANE	TRACE	0.1	0.4
HEXANES PLUS	0.1	0.2	1.0
NITROGEN	0.5	1.1	9.7
OXYGEN	0.1	0.1	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	TRACE	TRACE	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.9	1.4	0.3
HELIUM	TRACE	TRACE	0.29
HEATING VALUE*	1161	1047	1273
SPECIFIC GRAVITY	0.669	0.611	0.825

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 367 SAMPLE 17849	INDEX 368 SAMPLE 17894	INDEX 369 SAMPLE 16677
STATE	TEXAS	TEXAS	TEXAS
COUNTY	CONCHO	DIMMIT	DUVAL
FIELD	VINSON GOEN	SHEPARD	GUERRA
WELL NAME	M. C. VINSON NO. 1	SHEPARD NO. 4	G. GUERRA, ET AL. NO. 1
LOCATION	SEC. 60, C. KIRCHNER SUR.	F. VANDERVOORT SUR. 74, A-12	A-185, W. MEYER 146 SUR.
OWNER	VINSON EXPLORATION, INC.	HOME PETROLEUM CORP.	AMINOIL U.S.A., INC.
COMPLETED	12/05/84	--/--/00	--/--/79
SAMPLED	09/23/85	11/07/85	10/04/82
FORMATION	PENN-GOEN	CRET-OLMOS	EOCE-WILCOX
GEOLOGIC PROVINCE CODE	410	220	220
DEPTH, FEET	3778	4596	10600
WELLHEAD PRESSURE, PSIG	1440	NOT GIVEN	6700
OPEN FLOW, MCFD	3925	4250	10000
COMPONENT, MOLE PCT			
METHANE	67.9	79.6	90.7
ETHANE	8.5	8.6	2.5
PROPANE	4.9	5.6	0.5
N-BUTANE	1.4	2.0	0.1
ISOBUTANE	0.6	1.0	0.1
N-PENTANE	0.3	0.6	0.1
ISOPENTANE	0.3	0.5	0.1
CYCLOPENTANE	TRACE	0.1	TRACE
HEXANES PLUS	0.2	0.4	0.1
NITROGEN	14.3	1.2	0.2
OXYGEN	0.0	TRACE	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	TRACE	TRACE	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	1.2	0.3	5.4
HELIUM	0.41	0.02	TRACE
HEATING VALUE*	1071	1278	997
SPECIFIC GRAVITY	0.761	0.739	0.633

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 370 SAMPLE 17590	INDEX 371 SAMPLE 17553	INDEX 372 SAMPLE 17821
STATE	TEXAS	TEXAS	TEXAS
COUNTY	DUVAL	FREESTONE	FREESTONE
FIELD	REALITOS S	DEW	MICHAEL BIRCH
WELL NAME	BARBARA SHAFFER BEACH NO. 1	WILLIAM C. GLAZENER NO. 1	HILL "X" NO. 16
LOCATION	SANTOS GARGIA GRANT A-1985	DURHAM AVANT SUR. A-3	J. H. EVANS SUR., A-220
OWNER	UNION TEXAS PETROLEUM CORP.	WAINOCO OIL & GAS CO.	SAXTON PETROLEUM CORP.
COMPLETED	02/07/85	12/--/82	04/--/85
SAMPLED	01/31/85	12/26/84	08/26/85
FORMATION	EOCE-QUEEN CITY	JURA-BOSSIER	CRET-RODESSA
GEOLOGIC PROVINCE CODE	220	260	260
DEPTH, FEET	9226	12359	9334
WELLHEAD PRESSURE, PSIG	5500	3500	3600
OPEN FLOW, MCFD	2000	1827	20000
COMPONENT, MOLE PCT			
METHANE	85.4	95.3	91.6
ETHANE	6.5	1.6	2.9
PROPANE	2.8	0.2	0.9
N-BUTANE	0.7	0.1	0.4
ISOBUTANE	0.5	TRACE	0.3
N-PENTANE	0.2	0.1	0.2
ISOPENTANE	0.3	0.0	0.1
CYCLOPENTANE	0.1	TRACE	0.1
HEXANES PLUS	0.3	0.1	0.3
NITROGEN	0.3	0.2	1.0
OXYGEN	0.1	0.0	0.0
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	2.8	2.4	2.2
HELIUM	TRACE	TRACE	0.02
HEATING VALUE*	1135	1012	1059
SPECIFIC GRAVITY	0.681	0.594	0.629

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 373 SAMPLE 17644	INDEX 374 SAMPLE 17906	INDEX 375 SAMPLE 17649
STATE	TEXAS	TEXAS	TEXAS
COUNTY	FREESTONE	GALVESTON	GOLIAD
FIELD	NAN-SU-GAIL	CLOUD	NOT GIVEN
WELL NAME	HILL GAS UNIT NO. 1	USNB OF GALVESTON TST. NO. 1	W. T. NEYLAND NO. 1
LOCATION	M.R. PALACIOUS SUR. A-20	ASA BRIGHAM SUR., A-5	DE JESUS & BARBRO SUR. A-51
OWNER	EXXON CO., U.S.A.	DE NOVO OIL & GAS, INC.	ROSEWOOD RESOURCES
COMPLETED	05/17/84	08/04/85	--/--/00
SAMPLED	04/--/85	11/11/85	04/18/85
FORMATION	JURA-BOSSIER	OLIG-FRIO	EOCE-WILCOX
GEOLOGIC PROVINCE CODE	260	220	220
DEPTH, FEET	12000	14680	14310
WELLHEAD PRESSURE,PSIG	3250	NOT GIVEN	1770
OPEN FLOW, MCFD	13000	4939	2200
COMPONENT, MOLE PCT			
METHANE	95.0	56.6	90.4
ETHANE	1.9	16.4	1.7
PROPANE	0.2	13.8	0.1
N-BUTANE	0.1	3.9	0.1
ISOBUTANE	TRACE	2.2	0.0
N-PENTANE	TRACE	1.1	0.1
ISOPENTANE	TRACE	1.0	0.0
CYCLOPENTANE	TRACE	0.3	TRACE
HEXANES PLUS	0.1	0.9	0.1
NITROGEN	0.3	0.0	0.6
OXYGEN	TRACE	TRACE	TRACE
ARGON	TRACE	0.0	TRACE
HYDROGEN	0.0	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	2.2	3.8	7.0
HELIUM	TRACE	TRACE	0.01
HEATING VALUE*	1010	1578	962
SPECIFIC GRAVITY	0.591	0.972	0.641

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 376 SAMPLE 17935	INDEX 377 SAMPLE 17867	INDEX 378 SAMPLE 17528
STATE	TEXAS	TEXAS	TEXAS
COUNTY	GOLIAD	GONZALES	HEMPHILL
FIELD	SOL PARKS	FULCHUR	ALPAR
WELL NAME	WILLIAM T. DONOGHUE NO. 1	SPIECKERMANN NO. 1	MORRIS-SHELL 1-77
LOCATION	MARIA DE JESUS BARBO SUR. A-	ROBERT H. WYNN SUR., A-474	SEC.77 41 H AND TC SURVEY
OWNER	PHYLKO ENERGY CORP.	PRIMARY FUELS, INC.	POGO PRODUCING CO.
COMPLETED	05/13/85	02/08/85	04/--/83
SAMPLED	--/--/00	10/10/85	11/28/84
FORMATION	OLIG-FRIO	CRET-EDWARDS "A"	DEVO-HUNTON
GEOLOGIC PROVINCE CODE	220	220	360
DEPTH, FEET	3385	11834	NOT GIVEN
WELLHEAD PRESSURE,PSIG	1359	3300	5200
OPEN FLOW, MCFD	3760	3666	650
COMPONENT, MOLE PCT			
METHANE	97.5	75.6	92.3
ETHANE	0.1	4.3	0.1
PROPANE	TRACE	1.6	TRACE
N-BUTANE	0.0	0.7	0.0
ISOBUTANE	0.0	0.5	0.0
N-PENTANE	0.0	0.6	0.0
ISOPENTANE	0.0	0.0	0.0
CYCLOPENTANE	0.0	0.3	0.0
HEXANES PLUS	0.0	1.1	0.0
NITROGEN	1.5	7.4	2.1
OXYGEN	0.3	1.1	0.1
ARGON	TRACE	0.1	TRACE
HYDROGEN	0.0	TRACE	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.5	6.8	5.3
HELIUM	0.01	TRACE	0.03
HEATING VALUE*	989	1018	937
SPECIFIC GRAVITY	0.567	0.758	0.615

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 379 SAMPLE 17717	INDEX 380 SAMPLE 17632	INDEX 381 SAMPLE 17688
STATE	TEXAS	TEXAS	TEXAS
COUNTY	HEMPHILL	HEMPHILL	HEMPHILL
FIELD	GLAZIER NW	HEMPHILL	JONES
WELL NAME	ELMER SPARKS NO. 2	BETTY SAVAGE NO. A-1	JONES TRUST NO. 25A
LOCATION	SEC. 63, BLK. 42, H&TC SUR.	SEC. 20, BLK. 1, I&GN SUR.	SEC. 25, BLK. 1, G&M SUR.
OWNER	DIAMOND SHAMROCK EXPL. CO.	KERR-MCGEE CORP.	WOODS PETROLEUM CORP.
COMPLETED	02/04/85	09/29/72	10/18/84
SAMPLED	06/18/85	03/29/85	05/24/85
FORMATION	PENN-MORROW U	PERM-GRANITE WASH	PENN-MORROW
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	11200	10685	11518
WELLHEAD PRESSURE,PSIG	2500	777	NOT GIVEN
OPEN FLOW, MCFD	1806	586	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE	85.4	82.1	94.1
ETHANE	7.7	9.6	2.0
PROPANE	2.9	4.0	0.2
N-BUTANE	0.7	1.2	0.1
ISOBUTANE	0.5	0.7	0.0
N-PENTANE	0.3	0.3	0.2
ISOPENTANE	0.2	0.4	0.0
CYCLOPENTANE	0.1	0.1	0.1
HEXANES PLUS	0.4	0.3	0.1
NITROGEN	0.6	0.7	1.3
OXYGEN	TRACE	0.1	0.2
ARGON	0.0	0.0	TRACE
HYDROGEN	TRACE	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	1.1	0.6	1.7
HELIUM	0.02	0.03	0.03
HEATING VALUE*	1164	1221	1015
SPECIFIC GRAVITY	0.674	0.703	0.599

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 382 SAMPLE 17690	INDEX 383 SAMPLE 17692	INDEX 384 SAMPLE 16242
STATE	TEXAS	TEXAS	TEXAS
COUNTY	HEMPHILL	HEMPHILL	HEMPHILL
FIELD	JONES	JONES	WILDCAT
WELL NAME	HUMPHREYS NO. 31A	HUMPHREYS NO. 32-A	THIERSTEIN NO. 75-1
LOCATION	SEC. 31, BLK. 1, B&M SUR.	SEC. 32, BLK 1, G&M SUR.	SEC. 75, BLK. 41, H&TC SUR.
OWNER	WOODS PETROLEUM CORP.	WOODS PETROLEUM CORP.	WOODS PETROLEUM CORP.
COMPLETED	12/13/84	06/07/84	12/09/80
SAMPLED	05/24/85	05/24/85	04/21/81
FORMATION	PENN-MORROW	PENN-MORROW U	PERM-GRANITE WASH
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	11392	11464	10918
WELLHEAD PRESSURE,PSIG	NOT GIVEN	NOT GIVEN	5400
OPEN FLOW, MCFD	NOT GIVEN	3522	4200
COMPONENT, MOLE PCT			
METHANE	92.9	91.7	81.9
ETHANE	3.9	3.4	8.7
PROPANE	0.7	0.6	3.9
N-BUTANE	0.2	0.2	1.0
ISOBUTANE	0.1	TRACE	1.0
N-PENTANE	0.1	0.1	0.3
ISOPENTANE	0.0	0.0	0.8
CYCLOPENTANE	0.1	0.1	0.4
HEXANES PLUS	0.2	0.3	1.1
NITROGEN	0.6	1.7	0.7
OXYGEN	0.0	0.5	TRACE
ARGON	TRACE	TRACE	0.0
HYDROGEN	0.0	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	1.3	1.4	0.3
HELIUM	0.02	0.03	0.02
HEATING VALUE*	1058	1036	1272
SPECIFIC GRAVITY	0.610	0.615	0.729

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 385 SAMPLE 17871	INDEX 386 SAMPLE 17670	INDEX 387 SAMPLE 17874
STATE	TEXAS	TEXAS	TEXAS
COUNTY	HIDALGO	HOWARD	HUTCHINSON
FIELD	TEXAS GARDENS	WILDCAT	HUTCHINSON
WELL NAME	ARCO CNG NO. 1	NELLIE SELLERS NO. 1	PRICE "O" NO. 2
LOCATION	Y. RAMIREZ SUR. 79	SEC. 146, BLK. 29, W&NW SUR.	SEC. 26, BLK. M21, TCRR SUR.
OWNER	ARCO OIL & GAS CO.	BELNORTH PETROLEUM CORP.	PHILLIPS PETROLEUM CO.
COMPLETED	11/07/84	--/--/84	08/16/85
SAMPLED	10/15/85	05/11/85	10/22/85
FORMATION	PERM-R SAND	PENN-CANYON	PERM-WHITE DOLOMITE
GEOLOGIC PROVINCE CODE	220	430	440
DEPTH, FEET	8351	7415	3333
WELLHEAD PRESSURE,PSIG	1575	NOT GIVEN	425
OPEN FLOW, MCFD	1102	2741	1005
COMPONENT, MOLE PCT			
METHANE	95.4	75.6	77.0
ETHANE	2.8	8.9	7.7
PROPANE	0.5	6.0	3.9
N-BUTANE	0.1	2.1	1.3
ISOBUTANE	0.1	0.6	0.6
N-PENTANE	0.1	0.6	0.4
ISOPENTANE	0.0	0.8	0.4
CYCLOPENTANE	0.1	0.3	0.1
HEXANES PLUS	0.2	0.6	0.4
NITROGEN	0.2	4.1	7.8
OXYGEN	0.0	TRACE	0.1
ARGON	TRACE	0.0	TRACE
HYDROGEN	TRACE	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.4	0.4	0.1
HELIUM	TRACE	0.11	0.24
HEATING VALUE*	1055	1274	1142
SPECIFIC GRAVITY	0.589	0.768	0.720

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 388 SAMPLE 17527	INDEX 389 SAMPLE 17582	INDEX 390 SAMPLE 16776
STATE	TEXAS	TEXAS	TEXAS
COUNTY	HUTCHINSON	JACK	JACK
FIELD	WILDCAT	BOONSVILLE	HENDERSON RANCH
WELL NAME	MARTY NO. 1	BILLIE YATES NO. 14	VERA HENDERSON NO. 1
LOCATION	SEC. 219, BLK. 2, I&GN SUR.	JAMES SWEENEY SUR., A-527	G. THOMPSON SUR. A-612
OWNER	FOLLETT OPERATING CO.	GULF OIL EXPL. & PROD. CO.	MITCHELL ENERGY CORP.
COMPLETED	06/06/84	08/27/84	11/24/80
SAMPLED	11/29/84	01/31/85	02/25/83
FORMATION	PERM-WICHITA-ALBANY	PENN-CADDO	PENN-MARBLE FALLS
GEOLOGIC PROVINCE CODE	440	420	420
DEPTH, FEET	3106	4682	5256
WELLHEAD PRESSURE,PSIG	500	1400	600
OPEN FLOW, MCFD	8000	1700	300
COMPONENT, MOLE PCT			
METHANE	79.9	77.0	75.9
ETHANE	6.1	7.1	8.9
PROPANE	2.9	6.8	5.4
N-BUTANE	0.9	2.1	1.7
ISOBUTANE	0.4	0.9	0.8
N-PENTANE	0.2	0.5	0.4
ISOPENTANE	0.2	0.5	1.0
CYCLOPENTANE	0.1	0.1	0.2
HEXANES PLUS	0.2	0.3	0.5
NITROGEN	8.5	4.1	4.4
OXYGEN	0.2	0.1	0.2
ARGON	TRACE	TRACE	TRACE
HYDROGEN	TRACE	0.0	0.2
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.3	0.2
HELIUM	0.19	0.12	0.13
HEATING VALUE*	1069	1247	1246
SPECIFIC GRAVITY	0.684	0.751	0.753

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 391 SAMPLE 17610	INDEX 392 SAMPLE 17577	INDEX 393 SAMPLE 17502
STATE	TEXAS	TEXAS	TEXAS
COUNTY	JACKSON	JIM HOGG	JIM HOGG
FIELD	TORO GRANDE	CHARCO LARGO CREEK (3330)	TRAVIS WARD
WELL NAME	A.T. DINCANS GAS UNIT NO. 1	KING RANCH COLO B. NO. 94	F. L. TREVINO NO. 1-A
LOCATION	J.E. SISNEROS SUR., A-70	LAS MORITAS GRANT	SEC. 17, ABSTRACT 181, H&GN
OWNER	CITIES SERVICE OIL & GAS COR	EXXON CO., U.S.A.	PAN AMERICAN SALES CORP.
COMPLETED	08/11/84	07/--/84	10/--/83
SAMPLED	03/05/85	01/24/85	10/16/84
FORMATION	EOCE-YEGUA	EOCE-JACKSON	EOCE-WILCOX
GEOLOGIC PROVINCE CODE	220	220	220
DEPTH, FEET	8696	3326	13960
WELLHEAD PRESSURE,PSIG	5913	1200	8500
OPEN FLOW, MCFD	29000	1447	628 1800
COMPONENT, MOLE PCT			
METHANE	94.3	91.3	81.7
ETHANE	2.3	4.1	0.1
PROPANE	0.9	1.2	TRACE
N-BUTANE	0.2	0.3	0.0
ISOBUTANE	0.2	0.5	0.0
N-PENTANE	0.1	0.1	0.0
ISOPENTANE	0.1	0.2	0.0
CYCLOPENTANE	0.1	0.2	0.0
HEXANES PLUS	0.1	0.3	0.0
NITROGEN	0.4	1.3	0.2
OXYGEN	0.1	0.2	0.0
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	0.0	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	1.2	0.3	17.9
HELIUM	TRACE	0.01	TRACE
HEATING VALUE*	1051	1092	830
SPECIFIC GRAVITY	0.603	0.625	0.730

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 394 SAMPLE 17679	INDEX 395 SAMPLE 17685	INDEX 396 SAMPLE 17926
STATE	TEXAS	TEXAS	TEXAS
COUNTY	JIM WELLS	JIM WELLS	LIMESTONE
FIELD	PAUL WHITE N	SOLO MUERTO	NAVASOTA
WELL NAME	HUNTER D NO. 1	GONZALES NO. 1	COLLIE SIMS NO. 1
LOCATION	MANUEL BARRERA A-36 SUR.	LA TINA JA DE LARA A-36	JUAN L. CHAVERT SUR., A-4
OWNER	TXO PRODUCTION CO.	AMERICAN PETROFINA CO. OF TE	TXO PRODUCTION CORP.
COMPLETED	--/--/00	11/16/84	03/07/85
SAMPLED	05/23/85	05/24/84	12/06/85
FORMATION	EOCE-YEGUA	EOCE-YEGUA	CRET-PETTIT
GEOLOGIC PROVINCE CODE	220	220	260
DEPTH, FEET	7181	7057	7504
WELLHEAD PRESSURE,PSIG	2100	3684	2600
OPEN FLOW, MCFD	350	23500	155
COMPONENT, MOLE PCT			
METHANE	89.0	60.7	92.1
ETHANE	5.6	16.7	3.2
PROPANE	2.2	12.0	1.3
N-BUTANE	0.7	3.9	0.7
ISOBUTANE	0.4	2.3	0.1
N-PENTANE	0.2	0.5	0.6
ISOPENTANE	0.4	1.8	0.0
CYCLOPENTANE	0.1	0.2	0.2
HEXANES PLUS	0.3	0.6	0.6
NITROGEN	0.3	0.3	0.2
OXYGEN	TRACE	TRACE	TRACE
ARGON	TRACE	TRACE	0.0
HYDROGEN	0.0	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.8	1.0	1.1
HELIUM	TRACE	TRACE	0.01
HEATING VALUE*	1141	1571	1115
SPECIFIC GRAVITY	0.651	0.925	0.637

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 397 SAMPLE 17785	INDEX 398 SAMPLE 16408	INDEX 399 SAMPLE 17552
STATE	TEXAS	TEXAS	TEXAS
COUNTY	LIPSCOMB	LIPSCOMB	LIPSCOMB
FIELD	FOLLETT S	NOT GIVEN	TRENFIELD CLEVELAND
WELL NAME	TRAVIS "N" NO. 3	SCHULTZ "F" NO. 2	SQUIRE NO. 2
LOCATION	SEC. 1134 BLK. 43, H&TC SUR.	SEC.1068, BLK. 43, T&TC SUR.	SEC. 108-052
OWNER	TXO PRODUCTION CORP.	COTTON PETROLEUM CORP.	MEWBOURNE OIL CO.
COMPLETED	01/23/85	--/--/80	07/22/84
SAMPLED	07/24/85	--/--/82	12/26/84
FORMATION	PENN-TONKAWA	PENN-TONKAWA	PENN-CLEVELAND
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	6420	6452	7668
WELLHEAD PRESSURE,PSIG	1780	NOT GIVEN	2300
OPEN FLOW, MCFD	5600	2700	1400
COMPONENT, MOLE PCT			
METHANE	85.5	86.8	79.8
ETHANE	6.9	5.3	10.6
PROPANE	3.0	1.8	5.3
N-BUTANE	1.0	0.3	1.3
ISOBUTANE	0.3	0.5	0.5
N-PENTANE	0.4	0.1	0.2
ISOPENTANE	0.3	0.0	0.3
CYCLOPENTANE	0.2	0.5	0.1
HEXANES PLUS	0.6	1.0	0.2
NITROGEN	1.4	2.9	1.2
OXYGEN	0.0	0.7	TRACE
ARGON	0.0	0.0	TRACE
HYDROGEN	TRACE	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.2	TRACE	0.5
HELIUM	0.08	0.05	0.07
HEATING VALUE*	1180	1122	1232
SPECIFIC GRAVITY	0.677	0.662	0.714

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 400 SAMPLE 17624	INDEX 401 SAMPLE 17897	INDEX 402 SAMPLE 16804
STATE	TEXAS	TEXAS	TEXAS
COUNTY	LIPSCOMB	LIVE OAK	MATAGORDA
FIELD	UNIT FIELD	NOT GIVEN	RUGELEY N
WELL NAME	EUGENE BOOTH NO. 3	KITTIE BURNS NO. 1	F. M. WATSON TRUST ET AL B-1
LOCATION	SEC. 637, BLK. 43, H&TC SUR.	W. L. NORVELL SUR. 58, A-310	M. B. NUCKOLLS SUR., A-66
OWNER	UNIT DRILLING & EXPL. CO.	PETRUS OPERATING CO., INC.	PRAIRIE PRODUCING CO.
COMPLETED	10/12/84	--/--/00	05/28/81
SAMPLED	03/21/85	11/11/85	03/14/83
FORMATION	PENN-MORROW U	EOCE-QUEEN CITY	OLIG-FRIO L
GEOLOGIC PROVINCE CODE	360	220	220
DEPTH, FEET	9220	7195	13116
WELLHEAD PRESSURE,PSIG	2250	3300	8215
OPEN FLOW, MCFD	23800	300	17500
COMPONENT, MOLE PCT			
METHANE	87.8	89.6	82.3
ETHANE	7.2	5.2	7.8
PROPANE	2.5	1.5	3.8
N-BUTANE	0.5	0.4	0.9
ISOBUTANE	0.3	0.2	1.1
N-PENTANE	0.1	0.2	0.1
ISOPENTANE	0.2	0.1	0.6
CYCLOPENTANE	0.1	0.1	0.1
HEXANES PLUS	0.1	0.2	0.2
NITROGEN	0.4	0.2	0.4
OXYGEN	TRACE	TRACE	0.0
ARGON	0.0	TRACE	TRACE
HYDROGEN	0.0	TRACE	0.2
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.8	2.4	2.5
HELIUM	0.07	TRACE	TRACE
HEATING VALUE*	1132	1087	1184
SPECIFIC GRAVITY	0.647	0.642	0.707

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 403 SAMPLE 17703	INDEX 404 SAMPLE 17725	INDEX 405 SAMPLE 17726
STATE	TEXAS	TEXAS	TEXAS
COUNTY	NACOGDOCHES	NUECES	NUECES
FIELD	NOT GIVEN	STRATTON	STRATTON
WELL NAME	ETTA BOZELL NO. 1	WARDNER NO. 162	DRYDEN NO. 9
LOCATION	JOHN H. HYDE JR., SUR. A-259	PASO ANCHO DE ABAJO GRANT	FRIO. E-41
OWNER	PRICHARD ENGINEERING	CHAMPLIN PETROLEUM CO.	CHAMPLIN PETROLEUM CO.
COMPLETED	--/--/00	09/07/84	08/18/84
SAMPLED	06/08/85	06/20/85	06/20/85
FORMATION	CRET-TRAVIS PEAK	OLIG-VICKSBURG	OLIG-VICKSBURG
GEOLOGIC PROVINCE CODE	260	220	220
DEPTH, FEET	10842	8525	6176
WELLHEAD PRESSURE,PSIG	NOT GIVEN	2800	400
OPEN FLOW, MCFD	1729	1116	393
COMPONENT, MOLE PCT			
METHANE	97.5	90.7	89.8
ETHANE	0.3	4.1	4.7
PROPANE	0.1	1.8	2.0
N-BUTANE	0.0	0.6	0.6
ISOBUTANE	0.0	0.4	0.6
N-PENTANE	0.0	0.2	0.2
ISOPENTANE	0.0	0.3	0.3
CYCLOPENTANE	0.0	0.1	0.1
HEXANES PLUS	0.0	0.3	0.5
NITROGEN	0.7	0.4	0.9
OXYGEN	0.1	TRACE	0.2
ARGON	TRACE	0.0	TRACE
HYDROGEN	TRACE	TRACE	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	1.4	1.0	TRACE
HELIUM	TRACE	TRACE	TRACE
HEATING VALUE*	996	1113	1137
SPECIFIC GRAVITY	0.575	0.638	0.644

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 406 SAMPLE 17914	INDEX 407 SAMPLE 16891	INDEX 408 SAMPLE 17915
STATE	TEXAS	TEXAS	TEXAS
COUNTY	OCHILTREE	OCHILTREE	OCHILTREE
FIELD	FARNSWORTH SE	HANSFORD	HAYWOOD
WELL NAME	DOC NO. 1-89	LYNN GAS UNIT NO. 2	LAIR-WERMSKE NO. 1-89
LOCATION	SEC. 89, BLK. 13, T&NO SUR.	SEC. 44, BLK. 4T, T&NO SUR.	SEC. 89, BLK. 13, T&NO SUR.
OWNER	NATURAL GAS ANADARKO, INC.	SUN EXPLORATION & PRODUCTION	NATURAL GAS ANADARKO, INC.
COMPLETED	07/05/84	05/--/82	05/15/84
SAMPLED	11/26/85	04/26/83	11/26/85
FORMATION	PENN-MORROW U	PENN-MORROW L	PENN-ATOKA
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	8210	7664	8030
WELLHEAD PRESSURE,PSIG	1962	1286	1883
OPEN FLOW, MCFD	3150	1560	2600
COMPONENT, MOLE PCT			
METHANE	87.4	88.0	81.2
ETHANE	5.9	5.0	10.0
PROPANE	2.9	2.5	4.4
N-BUTANE	1.0	0.7	1.5
ISOBUTANE	0.1	0.2	0.2
N-PENTANE	0.4	0.1	0.6
ISOPENTANE	0.2	0.2	0.2
CYCLOPENTANE	0.1	TRACE	0.1
HEXANES PLUS	0.4	0.1	0.4
NITROGEN	0.8	2.4	0.7
OXYGEN	TRACE	TRACE	TRACE
ARGON	0.0	0.1	0.0
HYDROGEN	0.0	0.2	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.6	0.4	0.5
HELIUM	0.11	0.12	0.09
HEATING VALUE*	1153	1095	1232
SPECIFIC GRAVITY	0.661	0.639	0.708

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 409 SAMPLE 16234	INDEX 410 SAMPLE 17916	INDEX 411 SAMPLE 17587
STATE	TEXAS	TEXAS	TEXAS
COUNTY	OCHILTREE	OCHILTREE	OCHILTREE
FIELD	NOT GIVEN	R. H. F.	TURNER SE
WELL NAME	HARRIS NO. 1	PATTISON NO. 1-87	MEKEEL NO. 1
LOCATION	SEC. 1094, BLK 43, H&TC SUR.	SEC. 87, BLK. 13, T&NO SUR.	SEC. 303, BLK.43, H&TC SUR.
OWNER	H & L OPERATING CO.	NATURAL GAS ANADARKO, INC.	TXO PRODUCTION CORP.
COMPLETED	09/17/80	06/30/84	10/20/84
SAMPLED	04/20/81	11/26/85	02/12/85
FORMATION	PENN-MORROW	PENN-CLEVELAND	PENN-MORROW
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	NOT GIVEN	6913	9210
WELLHEAD PRESSURE,PSIG	2060	1597	1675
OPEN FLOW, MCFD	12000	2350	720
COMPONENT, MOLE PCT			
METHANE	82.5	81.6	83.4
ETHANE	8.3	4.7	8.0
PROPANE	5.0	5.4	4.7
N-BUTANE	1.2	2.0	1.3
ISOBUTANE	0.6	0.5	0.4
N-PENTANE	0.3	0.6	0.2
ISOPENTANE	0.1	0.4	0.5
CYCLOPENTANE	0.1	0.2	0.1
HEXANES PLUS	0.1	0.3	0.2
NITROGEN	1.1	3.7	0.6
OXYGEN	0.0	TRACE	TRACE
ARGON	TRACE	0.0	TRACE
HYDROGEN	0.0	TRACE	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.7	0.5	0.6
HELIUM	0.09	0.18	0.06
HEATING VALUE*	1201	1201	1211
SPECIFIC GRAVITY	0.696	0.720	0.696

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 412 SAMPLE 17865	INDEX 413 SAMPLE 17866	INDEX 414 SAMPLE 17474
STATE	TEXAS	TEXAS	TEXAS
COUNTY	OFFSHORE-OCS	OFFSHORE-OCS	PECOS
FIELD	MATAGORDA ISLAND	MATAGORDA ISLAND	HEINER S
WELL NAME	OCS-G-4550 NO. A-1	OCS-G-4550 NO. A-2	CROWLEY STATE NO. 1
LOCATION	BLOCK 712-L	BLOCK 712-L	SEC. 590-B1-102 GC & SFRR
OWNER	TENNECO EXP. & PROD. CO.	TENNECO EXP. & PROD. CO.	WAY, RALPH L., INC.
COMPLETED	03/09/84	03/18/84	05/17/83
SAMPLED	10/11/85	10/11/85	10/04/84
FORMATION	MIOC-MP-B1	MIOC-MP-B1	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE	955	955	430
DEPTH, FEET	9632	9477	4380
WELLHEAD PRESSURE,PSIG	3416	3452	1584
OPEN FLOW, MCFD	6855	6855	7400
COMPONENT, MOLE PCT			
METHANE	95.1	95.7	94.7
ETHANE	2.0	1.9	2.0
PROPANE	0.4	0.4	0.5
N-BUTANE	0.2	0.1	0.2
ISOBUTANE	0.1	0.1	0.1
N-PENTANE	0.2	0.1	0.1
ISOPENTANE	0.0	0.0	0.0
CYCLOPENTANE	0.1	0.1	TRACE
HEXANES PLUS	0.2	0.2	0.1
NITROGEN	0.7	0.4	0.7
OXYGEN	0.0	0.0	TRACE
ARGON	0.0	TRACE	TRACE
HYDROGEN	0.0	TRACE	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.2
CARBON DIOXIDE	1.0	1.0	1.4
HELIUM	0.02	TRACE	0.02
HEATING VALUE*	1042	1039	1029
SPECIFIC GRAVITY	0.596	0.591	0.596

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 415 SAMPLE 16387	INDEX 416 SAMPLE 17880	INDEX 417 SAMPLE 17601
STATE	TEXAS	TEXAS	TEXAS
COUNTY	PECOS	PECOS	ROBERTS
FIELD	MANZANITA	NOT GIVEN	MCMORDIE RANCH
WELL NAME	MANZANITA G.U. NO. 1	PAGE HANKS NO. 1	MCMORDIE NO.127-C-2
LOCATION	SEC. 169, BLK. 3, T&P SUR.	SEC. 17, BLK. 125, T&STL SUR	SEC. 127, C&GM SUR.
OWNER	TEXACO INC.	HARVEY E. YATES CO.	PLAINS RESOURCES, INC.
COMPLETED	04/01/81	07/16/84	08/05/83
SAMPLED	10/27/81	10/24/85	--/--/00
FORMATION	DEVO-MANZANITA	PENN-BARBASAL	PERM-GRANITE WASH
GEOLOGIC PROVINCE CODE	430	430	360
DEPTH, FEET	13834	6800	7475
WELLHEAD PRESSURE,PSIG	4800	1867	NOT GIVEN
OPEN FLOW, MCFD	5364	1610	1832
COMPONENT, MOLE PCT			
METHANE	94.8	75.3	77.2
ETHANE	0.4	5.0	12.9
PROPANE	TRACE	2.1	5.7
N-BUTANE	0.0	0.8	1.0
ISOBUTANE	0.0	0.3	0.4
N-PENTANE	0.0	0.5	0.2
ISOPENTANE	0.0	0.1	0.2
CYCLOPENTANE	0.0	0.3	TRACE
HEXANES PLUS	0.0	0.7	0.1
NITROGEN	0.6	11.0	1.2
OXYGEN	0.0	2.7	0.2
ARGON	TRACE	0.1	TRACE
HYDROGEN	TRACE	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	4.0	1.1	0.8
HELIUM	0.01	0.03	0.05
HEATING VALUE*	967	1017	1230
SPECIFIC GRAVITY	0.597	0.723	0.720

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 418 SAMPLE 17543	INDEX 419 SAMPLE 16418	INDEX 420 SAMPLE 17913
STATE	TEXAS	TEXAS	TEXAS
COUNTY	RUSK	RUSK	STARR
FIELD	KILGORE S	MOUNT ENTERPRISE	BAYLOR
WELL NAME	PAT.CHRISTIAN MCCRORY NO.1-P	TEMPLE NO. 2	R. GUERRA NO. 1
LOCATION	H. FARMER SURVEY A-287	S.C. GLASSCOCK SUR., A-926	SAN JOSE GRANT A-78
OWNER	RAINBOW RESOURCES, INC.	HINTON PRODUCTION CO.	MARK IV ENERGY
COMPLETED	09/23/83	08/01/81	01/05/85
SAMPLED	--/--/00	01/29/82	11/15/85
FORMATION	CRET-TRAVIS PEAK	CRET-PETTIT	OLIG-VICKSBURG
GEOLOGIC PROVINCE CODE	260	260	220
DEPTH, FEET	7518	7700	6657
WELLHEAD PRESSURE,PSIG	2633	1700	600
OPEN FLOW, MCFD	2330	1000	25200
COMPONENT, MOLE PCT			
METHANE	75.1	91.3	36.7
ETHANE	4.2	3.5	2.5
PROPANE	1.6	1.5	0.9
N-BUTANE	0.7	0.6	0.3
ISOBUTANE	0.4	0.4	0.2
N-PENTANE	0.3	0.3	0.2
ISOPENTANE	0.4	0.1	0.1
CYCLOPENTANE	0.1	0.1	0.1
HEXANES PLUS	0.4	0.3	0.3
NITROGEN	13.1	1.2	45.5
OXYGEN	2.9	TRACE	12.3
ARGON	0.1	0.0	0.6
HYDROGEN	TRACE	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.7	0.6	0.2
HELIUM	0.03	0.02	TRACE
HEATING VALUE*	969	1096	489
SPECIFIC GRAVITY	0.711	0.629	0.860

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 421 SAMPLE 17896	INDEX 422 SAMPLE 17884	INDEX 423 SAMPLE 17907
STATE	TEXAS	TEXAS	TEXAS
COUNTY	SUTTON	VAL VERDE	VICTORIA
FIELD	HALBERT	SIMPSON MANN (CANYON)	GARICITAS CREEK N
WELL NAME	ASKEW "77" NO. 2	TENNECO FEE NO. 1	KOLLE KUTCHKA NO. 1
LOCATION	SEC. 77, BLK. 9, TW&NG SUR.	SEC. 9, BLK. Q-5, TC&RR SUR.	W. H. ALLEN SUR., A-389
OWNER	DIAMOND SHAMROCK EXPL. CO.	SIMPSON MANN, INC.	ARCO OIL & GAS CO.
COMPLETED	04/18/85	09/01/84	01/--/85
SAMPLED	10/25/85	10/29/85	11/11/85
FORMATION	PENN-STRAWN	PENN-CANYON	OLIG-FRIO
GEOLOGIC PROVINCE CODE	430	430	220
DEPTH, FEET	5530	4217	3782
WELLHEAD PRESSURE,PSIG	1743	1550	1049
OPEN FLOW, MCFD	33000	4600	2118
COMPONENT, MOLE PCT			
METHANE	75.8	87.4	97.9
ETHANE	7.8	5.4	0.7
PROPANE	4.1	3.1	0.1
N-BUTANE	1.2	1.0	TRACE
ISOBUTANE	0.4	0.2	0.0
N-PENTANE	0.3	0.4	0.1
ISOPENTANE	0.3	0.3	0.0
CYCLOPENTANE	0.1	0.2	TRACE
HEXANES PLUS	0.3	0.5	0.1
NITROGEN	8.0	1.1	0.8
OXYGEN	0.1	TRACE	0.0
ARGON	TRACE	0.0	TRACE
HYDROGEN	TRACE	TRACE	0.2
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	1.2	0.3	0.2
HELIUM	0.27	0.05	0.01
HEATING VALUE*	1113	1166	1017
SPECIFIC GRAVITY	0.723	0.667	0.568

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 424 SAMPLE 16421	INDEX 425 SAMPLE 17720	INDEX 426 SAMPLE 17723
STATE	TEXAS	TEXAS	TEXAS
COUNTY	WALLER	WASHINGTON	WEBB
FIELD	PANG-LLAN	CWWJ	AGUA AZUL
WELL NAME	ELIZABETH SORSBY ET AL, NO 1	W. M. HUTCHINGS EST. NO. 1	BONUGLI NO. 3
LOCATION	JUSTO LIENDO SUR., A-41	SUSANNAH CLAMPITT SUR. A-26	J.V. BOREGO GRANT, A-563
OWNER	PLACID OIL CO.	CLAYTON W. WILLIAMS, JR.	TDC ENGINEERING, INC.
COMPLETED	05/21/81	--/--/00	11/30/85
SAMPLED	02/02/82	06/17/85	06/19/85
FORMATION	CRET-L	CRET-AUSTIN CHALK	EOCE-WILCOX L
GEOLOGIC PROVINCE CODE	220	220	220
DEPTH, FEET	19132	12227	10499
WELLHEAD PRESSURE,PSIG	15085	4500	7475
OPEN FLOW, MCFD	12644	2013	12000
COMPONENT, MOLE PCT			
METHANE	92.6	84.7	93.2
ETHANE	0.1	5.3	2.9
PROPANE	TRACE	1.1	0.5
N-BUTANE	0.0	0.4	0.1
ISOBUTANE	0.0	0.4	0.1
N-PENTANE	0.0	0.3	0.1
ISOPENTANE	0.0	0.0	TRACE
CYCLOPENTANE	0.0	0.1	TRACE
HEXANES PLUS	0.0	0.5	0.2
NITROGEN	0.5	1.4	1.3
OXYGEN	0.0	0.2	0.3
ARGON	0.0	TRACE	TRACE
HYDROGEN	0.0	TRACE	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	6.7	5.5	1.1
HELIUM	0.01	TRACE	TRACE
HEATING VALUE*	940	1051	1031
SPECIFIC GRAVITY	0.622	0.683	0.600

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 427 SAMPLE 17903	INDEX 428 SAMPLE 17887	INDEX 429 SAMPLE 17807
STATE	TEXAS	TEXAS	TEXAS
COUNTY	WEBB	WEBB	WEBB
FIELD	BONEBRAKE	BRISCOE	CARMON
WELL NAME	J. H. BONEBRAKE NO. 1	BRISCOE NO. A-1C	R. V. BENAVIDES NO. 28
LOCATION	C. M. SAWYER SUR. 1650, A-24	BS&F SUR. 985, A-871	SEC. 1906, C. HOWARD SLR.
OWNER	FOREST OIL CORP.	GHR ENERGY CORP.	CONOCO, INC.
COMPLETED	06/07/85	03/09/85	03/07/85
SAMPLED	11/07/85	10/22/85	08/14/85
FORMATION	EOCE-LOBO 6	EOCE-LOBO	EOCE-LOBO 6
GEOLOGIC PROVINCE CODE	220	220	220
DEPTH, FEET	9869	8080	9034
WELLHEAD PRESSURE,PSIG	4440	4203	4850
OPEN FLOW, MCFD	7412	3830	337
COMPONENT, MOLE PCT			
METHANE	85.0	83.6	84.3
ETHANE	7.6	7.0	7.8
PROPANE	2.6	3.9	2.9
N-BUTANE	0.8	1.3	0.7
ISOBUTANE	0.4	0.6	0.6
N-PENTANE	0.5	0.5	0.3
ISOPENTANE	0.1	0.5	0.3
CYCLOPENTANE	0.2	0.2	0.1
HEXANES PLUS	0.6	0.6	0.5
NITROGEN	0.5	0.2	0.9
OXYGEN	TRACE	TRACE	0.1
ARGON	TRACE	TRACE	TRACE
HYDROGEN	TRACE	TRACE	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	1.7	1.5	1.5
HELIUM	TRACE	TRACE	TRACE
HEATING VALUE*	1169	1219	1168
SPECIFIC GRAVITY	0.685	0.709	0.686

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 430 SAMPLE 17813	INDEX 431 SAMPLE 17850	INDEX 432 SAMPLE 16167
STATE	TEXAS	TEXAS	TEXAS
COUNTY	WEBB	WEBB	WHEELER
FIELD	CRYSTAL LOBO	DESPERADO	BILLY-ROSE
WELL NAME	EDITH CARR NO. 1	LUNDELL "A" NO. 5	HEFLEY G.U. NO. 1
LOCATION	F. C. JORDAN SUR., 260	CCSD & RGNG SUR. 41-A-1039	SEC. 13, BLK. A-8, H&GN SUR.
OWNER	CONOCO, INC.	FOREST OIL CORP.	LEEDE OIL & GAS, INC.
COMPLETED	10/10/84	04/22/85	07/01/79
SAMPLED	08/14/85	09/26/85	--/--/00
FORMATION	EOCE-LOBO 6	EOCE-WILCOX & LOBO 6	PERM-GRANITE WASH
GEOLOGIC PROVINCE CODE	220	220	360
DEPTH, FEET	8614	11251	5000
WELLHEAD PRESSURE,PSIG	5650	5300	1450
OPEN FLOW, MCFD	5100	26727	1800
COMPONENT, MOLE PCT			
METHANE	91.5	91.6	71.7
ETHANE	4.0	4.0	9.6
PROPANE	1.3	0.6	7.1
N-BUTANE	0.4	0.2	3.6
ISOBUTANE	0.3	0.0	1.9
N-PENTANE	0.2	0.3	1.2
ISOPENTANE	TRACE	0.0	1.4
CYCLOPENTANE	0.2	0.1	0.3
HEXANES PLUS	0.5	0.2	0.9
NITROGEN	0.5	0.2	2.1
OXYGEN	0.1	0.0	TRACE
ARGON	TRACE	TRACE	0.0
HYDROGEN	TRACE	TRACE	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	1.2	2.9	0.0
HELIUM	TRACE	TRACE	0.05
HEATING VALUE*	1098	1049	1437
SPECIFIC GRAVITY	0.633	0.625	0.842

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 433 SAMPLE 17550	INDEX 434 SAMPLE 17572	INDEX 435 SAMPLE 17783
STATE	TEXAS	TEXAS	TEXAS
COUNTY	WHEELER	WHEELER	WHEELER
FIELD	FRYE-GRANITE WASH	KEY	KEY
WELL NAME	STANLEY UNIT NO. 1-50	KEY NO. 2-11	KEY "9" NO. 2
LOCATION	SEC. 50, BLOCK A3, H&GN SUR.	SEC. 11, BLK.1, B&B SUR.	SEC/ 9, BLK. 1, B&B SUR.
OWNER	HNG OIL CO.	APACHE CORP.	HNG OIL CO.
COMPLETED	09/07/83	02/14/83	02/11/85
SAMPLED	12/26/84	01/22/85	07/22/85
FORMATION	PENN-GRANITE WASH	PENN-MORROW U	PENN-BRITT
GEOLOGIC PROVINCE CODE	360	360	360
DEPTH, FEET	12156	16106	12325
WELLHEAD PRESSURE,PSIG	3100	4398	4282
OPEN FLOW, MCFD	800	31323	13000
COMPONENT, MOLE PCT			
METHANE	78.1	97.0	77.3
ETHANE	13.2	0.6	11.9
PROPANE	5.2	0.1	5.5
N-BUTANE	1.1	0.1	1.4
ISOBUTANE	0.5	TRACE	1.0
N-PENTANE	0.1	0.1	0.3
ISOPENTANE	0.3	0.0	0.6
CYCLOPENTANE	TRACE	TRACE	0.2
HEXANES PLUS	0.1	0.1	0.2
NITROGEN	1.1	0.4	1.2
OXYGEN	TRACE	0.1	TRACE
ARGON	TRACE	TRACE	0.0
HYDROGEN	0.0	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	1.6	0.2
HELIUM	0.03	0.02	0.03
HEATING VALUE*	1239	1009	1276
SPECIFIC GRAVITY	0.711	0.583	0.737

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 436 SAMPLE 17565	INDEX 437 SAMPLE 16392	INDEX 438 SAMPLE 17737
STATE	TEXAS	TEXAS	TEXAS
COUNTY	WHEELER	WISE	WISE
FIELD	MOBEETIE	BBC	BOONSVILLE
WELL NAME	MOBEETIE O.U. NO. 12	C. W. POUNDS NO. 1	H.F. MARES, JR., NO. 2
LOCATION	SEC. 55, BLK. A-5, H&GN SUR.	SOUTH ISAACS SURVEY, A-454	A.G. HARRIS SURV. A-375
OWNER	AMOCO PRODUCTION CO.	NORTH CENTRAL OIL CORP.	MITCHELL ENERGY CORP.
COMPLETED	08/24/84	12/18/57	03/25/85
SAMPLED	01/15/85	12/10/81	07/01/85
FORMATION	PENN-MISSOURIAN BASAL	DEVO-BBC	PENN-ATOKA CONGLOMERATE
GEOLOGIC PROVINCE CODE	360	420	420
DEPTH, FEET	8120	5757	6457
WELLHEAD PRESSURE,PSIG	1800	400	620
OPEN FLOW, MCFD	2240	103	12250
COMPONENT, MOLE PCT			
METHANE	87.3	81.3	77.4
ETHANE	4.4	8.2	10.2
PROPANE	1.8	3.9	5.6
N-BUTANE	0.7	1.1	1.5
ISOBUTANE	0.3	0.5	0.8
N-PENTANE	0.2	0.4	0.1
ISOPENTANE	0.5	0.5	0.6
CYCLOPENTANE	0.2	0.1	TRACE
HEXANES PLUS	0.5	0.2	0.2
NITROGEN	3.9	3.1	2.7
OXYGEN	TRACE	0.1	0.1
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	0.1	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.2	0.5
HELIUM	0.07	0.13	0.11
HEATING VALUE*	1107	1178	1230
SPECIFIC GRAVITY	0.655	0.696	0.729

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 439 SAMPLE 17158	INDEX 440 SAMPLE 17159	INDEX 441 SAMPLE 17836
STATE	UTAH	UTAH	UTAH
COUNTY	EMERY	EMERY	EMERY
FIELD	FERRON	FERRON	INDIAN CREEK UNIT
WELL NAME	MRC FERRON NO. 15	MRC NO. 2	INDIAN CREEK NO. 10176-5
LOCATION	SEC. 34, T20S, R7E	SEC. 10, T21S, R7E	SEC. 10, T17S, R6E
OWNER	MOUNTAIN RESOURCES CORP.	MOUNTAIN RESOURCES CORP.	VORTT EXPLORATION CO., INC.
COMPLETED	--/--/00	--/--/00	12/--/82
SAMPLED	01/25/84	01/25/84	09/18/85
FORMATION	CRET-FERRON	CRET-FERRON	CRET-FERRON
GEOLOGIC PROVINCE CODE	585	585	585
DEPTH, FEET	NOT GIVEN	1200	5627
WELLHEAD PRESSURE,PSIG	NOT GIVEN	350	1025
OPEN FLOW, MCFD	NOT GIVEN	600	3520
COMPONENT, MOLE PCT			
METHANE	93.5	94.2	90.4
ETHANE	1.8	1.6	3.6
PROPANE	0.8	0.8	2.4
N-BUTANE	0.1	0.2	0.7
ISOBUTANE	0.3	0.2	0.5
N-PENTANE	TRACE	0.1	0.3
ISOPENTANE	TRACE	TRACE	0.1
CYCLOPENTANE	TRACE	TRACE	0.1
HEXANES PLUS	TRACE	0.1	0.2
NITROGEN	2.8	2.2	1.2
OXYGEN	0.3	0.1	0.1
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.3	0.3
HELIUM	0.07	0.06	0.02
HEATING VALUE*	1014	1027	1114
SPECIFIC GRAVITY	0.590	0.592	0.637

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 442 SAMPLE 17647	INDEX 443 SAMPLE 17513	INDEX 444 SAMPLE 17431
STATE	UTAH	UTAH	UTAH
COUNTY	EMERY	GARFIELD	GRAND
FIELD	NOT GIVEN	ESCALANTE ANTICLINE	WESTWATER
WELL NAME	INDIAN CREEK NO. 021762-3	CHARGER NO. 4	U.S.A. NO. 1-34
LOCATION	SEC. 2, T17S, R6E	SEC. 13, T33S, R2E	SEC. 34, T16S, R24E
OWNER	VORTT EXPLORATION CO., INC.	MID-CONTINENT OIL CORP.	F & M OIL CO.
COMPLETED	10/19/84	--/--/00	09/23/83
SAMPLED	--/--/00	10/31/84	09/25/84
FORMATION	CRET-FERRON	TRIA-SHINARUMP & MOENKOPI	CRET-DAKOTA & JURA-MORRISON
GEOLOGIC PROVINCE CODE	585	585	585
DEPTH, FEET	5530	3005	5866
WELLHEAD PRESSURE,PSIG	1050	25	NOT GIVEN
OPEN FLOW, MCFD	3900	29504	1195
COMPONENT, MOLE PCT			
METHANE	88.8	0.2	85.5
ETHANE	4.4	0.0	4.3
PROPANE	2.8	TRACE	1.3
N-BUTANE	0.7	0.0	0.5
ISOBUTANE	0.7	0.0	0.7
N-PENTANE	0.1	0.0	0.3
ISOPENTANE	0.2	0.0	TRACE
CYCLOPENTANE	0.1	0.0	0.2
HEXANES PLUS	0.2	0.0	0.7
NITROGEN	1.6	2.0	5.6
OXYGEN	0.2	0.1	0.1
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	TRACE	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.2	97.6	0.6
HELIUM	0.02	0.04	0.29
HEATING VALUE*	1125	2	1074
SPECIFIC GRAVITY	0.648	1.514	0.662

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 445 SAMPLE 17432	INDEX 446 SAMPLE 17596	INDEX 447 SAMPLE 17928
STATE	UTAH	UTAH	UTAH
COUNTY	GRAND	GRAND	UINTAH
FIELD	WESTWATER	WESTWATER	NATURAL BUTTES
WELL NAME	U.S.A. NO. 2-34	FED. NO. 1-34	RIVER BEND UNIT NO. 9-13E
LOCATION	SEC. 34, T16S, R24E	SEC. 34, T16S, R24E	SEC. L3, T10S, R19E
OWNER	F & M OIL CO.	F & M OIL CO.	CNG PRODUCING CO.
COMPLETED	10/14/83	11/01/83	09/11/85
SAMPLED	09/25/84	02/19/85	12/11/85
FORMATION	CRET-DAKOTA & JURA-MORRISON	JURA-MANCOS & JURA-MORRISON	EOCE-CHAPITA WELLS
GEOLOGIC PROVINCE CODE	585	585	575
DEPTH, FEET	5904	5866	5432
WELLHEAD PRESSURE,PSIG	NOT GIVEN	1100	1900
OPEN FLOW, MCFD	663	1200	2391
COMPONENT, MOLE PCT			
METHANE	79.6	88.1	89.9
ETHANE	8.2	4.3	4.0
PROPANE	3.4	1.1	1.2
N-BUTANE	1.0	0.4	0.4
ISOBUTANE	0.6	0.4	0.3
N-PENTANE	0.3	0.2	0.4
ISOPENTANE	0.4	0.2	0.2
CYCLOPENTANE	0.1	TRACE	0.5
HEXANES PLUS	0.3	0.3	1.1
NITROGEN	5.5	3.8	1.7
OXYGEN	TRACE	0.0	0.1
ARGON	TRACE	TRACE	0.0
HYDROGEN	0.0	0.2	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.7	1.0	0.3
HELIUM	0.10	0.17	TRACE
HEATING VALUE*	1144	1058	1138
SPECIFIC GRAVITY	0.706	0.639	0.655

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULT MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 448 SAMPLE 17789	INDEX 449 SAMPLE 17581	INDEX 450 SAMPLE 17592
STATE	UTAH	WEST VIRGINIA	WEST VIRGINIA
COUNTY	UINTAH	CABELL	LEWIS
FIELD	UNDESIGNATED	BARBOURSVILLE DISTRICT	WESTON JANE-LEW
WELL NAME	LIZZARD CREEK FED. NO. 1-10	E. H. JOHNSON NO. 1	VILLERS DONNOLLY NO. 12
LOCATION	SEC. 10, T11S, R22E	WINSLOW QUAD., HUGHES BRANCH	WESTON QUAD.
OWNER	E P OPERATING CO.	ALLEGHENY & WESTERN ENERGY C	D. G. HANEY, INC.
COMPLETED	11/10/84	10/11/83	11/23/80
SAMPLED	07/30/85	01/30/85	02/12/85
FORMATION	CRET-MESAVERDE	DEVO-SHALE	DEVO-ELK
GEOLOGIC PROVINCE CODE	575	160	160
DEPTH, FEET	7556	3335	5982
WELLHEAD PRESSURE,PSIG	2300	NOT GIVEN	1460
OPEN FLOW, MCFD	NOT GIVEN	130	2953
COMPONENT, MOLE PCT			
METHANE	84.2	77.0	84.6
ETHANE	6.3	12.1	9.9
PROPANE	3.9	5.6	2.9
N-BUTANE	1.2	1.3	0.7
ISOBUTANE	0.8	0.3	0.4
N-PENTANE	0.3	0.2	0.2
ISOPENTANE	0.7	0.2	0.1
CYCLOPENTANE	0.1	0.1	0.1
HEXANES PLUS	0.4	0.1	0.3
NITROGEN	0.4	2.7	0.6
OXYGEN	TRACE	TRACE	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	TRACE	0.3	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	1.7	TRACE	0.1
HELIUM	TRACE	0.08	0.05
HEATING VALUE*	1201	1223	1179
SPECIFIC GRAVITY	0.704	0.716	0.567

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 451 SAMPLE 17524	INDEX 452 SAMPLE 17678	INDEX 453 SAMPLE 17808
STATE	WEST VIRGINIA	WEST VIRGINIA	WEST VIRGINIA
COUNTY	MASON	MCDOWELL	MINGO
FIELD	HANNA DISTRICT	ASHLAND	NOT GIVEN
WELL NAME	DALE NIBERT #1-1738	E. SMITH NO. 4	C-431 COTIGA DEVEL. NO. 1
LOCATION	FLATFOOT CREEK	ADKIN DISTRICT	MYRTLE QUAD.
OWNER	UNION DRILLING, INC.	BEREA OIL & GAS CORP.	SENECA-UPSHUR PETROLEUM CO.
COMPLETED	--/--/00	11/16/84	05/12/83
SAMPLED	11/14/84	05/22/85	08/14/85
FORMATION	DEVO-HURON	MISS-WEIR	DEVO-BROWN SHALE
GEOLOGIC PROVINCE CODE	160	160	160
DEPTH, FEET	3000	3760	3674
WELLHEAD PRESSURE,PSIG	600	860	670
OPEN FLOW, MCFD	158	3800	1200
COMPONENT, MOLE PCT			
METHANE	82.8	96.4	66.2
ETHANE	7.5	1.4	12.3
PROPANE	3.6	0.1	4.4
N-BUTANE	0.9	0.0	1.1
ISOBUTANE	0.2	0.0	0.3
N-PENTANE	0.2	0.0	0.3
ISOPENTANE	0.2	0.0	0.2
CYCLOPENTANE	0.1	0.0	0.1
HEXANES PLUS	0.1	0.0	0.3
NITROGEN	3.8	1.7	11.7
OXYGEN	TRACE	0.2	2.7
ARGON	TRACE	TRACE	0.1
HYDROGEN	0.4	0.1	0.2
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.1	0.1
HELIUM	0.16	0.08	0.03
HEATING VALUE*	1131	1005	1094
SPECIFIC GRAVITY	0.671	0.571	0.763

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 454 SAMPLE 17704	INDEX 455 SAMPLE 17677	INDEX 456 SAMPLE 17523
STATE	WEST VIRGINIA	WEST VIRGINIA	WEST VIRGINIA
COUNTY	RANDOLPH	TUCKER	UPSHUR
FIELD	CASSITY	CANAAN VALLEY	NOT GIVEN
WELL NAME	M. G. WARD NO. 4	ALLMAN & TETER NO. 1	BOONE
LOCATION	ADOLPH QUAD.	BLACKWATER FALLS QUAD	CARTER
OWNER	SENECA-UPSHUR PETROLEUM CO.	BEREA OIL & GAS CORP.	UNION DRILLING, INC.
COMPLETED	04/18/82	04/18/82	--/--/00
SAMPLED	06/10/85	05/17/85	11/09/84
FORMATION	DEVO-BENSON	DEVO-ORISKANY	DEVO-ORISKANY
GEOLOGIC PROVINCE CODE	160	160	160
DEPTH, FEET	3656	8450	NOT GIVEN
WELLHEAD PRESSURE,PSIG	550	2650	1700
OPEN FLOW, MCFD	160	5000	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE	91.0	98.1	96.5
ETHANE	5.4	1.0	2.2
PROPANE	1.3	TRACE	0.1
N-BUTANE	0.3	0.0	0.1
ISOBUTANE	0.1	0.0	TRACE
N-PENTANE	0.1	0.0	TRACE
ISOPENTANE	TRACE	0.0	0.0
CYCLOPENTANE	TRACE	0.0	TRACE
HEXANES PLUS	0.1	0.0	TRACE
NITROGEN	0.8	0.5	0.8
OXYGEN	TRACE	TRACE	TRACE
ARGON	0.5	0.0	TRACE
HYDROGEN	0.2	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.3	0.2
HELIUM	0.07	0.04	0.03
HEATING VALUE*	1076	1012	1023
SPECIFIC GRAVITY	0.611	0.564	0.573

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 457 SAMPLE 17663	INDEX 458 SAMPLE 17086	INDEX 459 SAMPLE 17531
STATE	WEST VIRGINIA	WYOMING	WYOMING
COUNTY	WYOMING	CAMPBELL	CAMPBELL
FIELD	RHODELL EXTENSION	AMOS DRAW	AMOS DRAW
WELL NAME	POCOHONTAS LAND NO. 1-42R	FLOYD BROTHERS NO. 1	NORTHWEST THRONE 2-35
LOCATION	RHODELL QUAD	SEC. 28, T51N, R75W	SEC. 35, T51N, R76W
OWNER	CABOT CORP.	DAVIS OIL CO.	DAVIS OIL CO.
COMPLETED	04/13/84	09/25/83	02/09/84
SAMPLED	05/07/85	10/09/83	12/03/84
FORMATION	MISS-WEIR	CRET-MUDDY	CRET-MUDDY
GEOLOGIC PROVINCE CODE	160	515	515
DEPTH, FEET	4120	9996	10393
WELLHEAD PRESSURE,PSIG	840	3829	1100
OPEN FLOW, MCFD	740	2537	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE	97.6	72.9	61.3
ETHANE	1.5	11.8	8.6
PROPANE	0.1	1.9	7.8
N-BUTANE	0.0	5.8	6.2
ISOBUTANE	0.0	0.0	3.1
N-PENTANE	0.0	0.0	2.4
ISOPENTANE	0.0	3.3	3.4
CYCLOPENTANE	0.0	0.2	1.0
HEXANES PLUS	0.0	0.4	2.9
NITROGEN	0.5	0.5	1.6
OXYGEN	TRACE	0.0	0.3
ARGON	0.0	0.1	0.0
HYDROGEN	0.2	0.1	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.1	3.1	1.4
HELIUM	0.07	0.01	0.01
HEATING VALUE*	1019	1365	1726
SPECIFIC GRAVITY	0.565	0.831	1.040

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 460 SAMPLE 17578	INDEX 461 SAMPLE 17873	INDEX 462 SAMPLE 17535
STATE	WYOMING	WYOMING	WYOMING
COUNTY	CAMPBELL	CAMPBELL	CAMPBELL
FIELD	AMOS DRAW	ECHETA	WILDCAT
WELL NAME	NORTHWEST THRONE NO. 2-35	ECHETA NO. 1	ELSIE WOLF NO. 1
LOCATION	SEC. 35, T51N, R76W	SEC. 13, T51N, R75W	SEC. 15, T43N, R71W
OWNER	DAVIS OIL CO.	DIAMOND SHAMROCK EXPL. CO.	DAVIS OIL CO.
COMPLETED	03/08/84	02/06/85	04/09/84
SAMPLED	01/25/85	10/17/85	12/11/84
FORMATION	CRET-MUDDY	CRET-MUDDY	CRET-DAKOTA
GEOLOGIC PROVINCE CODE	515	515	515
DEPTH, FEET	10393	9157	10332
WELLHEAD PRESSURE,PSIG	1100	700	1700
OPEN FLOW, MCFD	630	1800	618
COMPONENT, MOLE PCT			
METHANE	78.3	75.7	79.4
ETHANE	12.1	12.3	10.5
PROPANE	4.5	5.0	4.0
N-BUTANE	1.0	1.4	0.9
ISOBUTANE	0.6	0.7	0.5
N-PENTANE	0.2	0.4	0.2
ISOPENTANE	0.3	0.4	0.3
CYCLOPENTANE	0.1	0.2	0.1
HEXANES PLUS	0.2	0.5	0.3
NITROGEN	0.7	0.9	1.7
OXYGEN	TRACE	0.0	0.1
ARGON	TRACE	0.0	TRACE
HYDROGEN	0.0	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	2.0	2.6	2.0
HELIUM	0.01	0.01	0.03
HEATING VALUE*	1216	1255	1184
SPECIFIC GRAVITY	0.722	0.758	0.714

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 463 SAMPLE 17722	INDEX 464 SAMPLE 17870	INDEX 465 SAMPLE 17532
STATE	WYOMING	WYOMING	WYOMING
COUNTY	CARBON	CARBON	CARBON
FIELD	BLUE GAP	COAL GULCH	O'BRIEN SPRINGS
WELL NAME	CIGE FEDERAL NO. 2A-8-15-92	COAL GULCH WIUE NO. 1	FED. NO. 14-32
LOCATION	SEC. 8, T15N, R92W	SEC. 34, T18N, R93W	SEC. 32, T25N, R86W
OWNER	SNYDER OIL CO.	AMOCO PRODUCTION CO.	CENEX
COMPLETED	11/21/84	08/12/80	04/21/82
SAMPLED	06/19/85	10/15/85	--/--/00
FORMATION	CRET-MESAVERDE	MISS-MADISON	CRET-FRONTIER
GEOLOGIC PROVINCE CODE	535	535	535
DEPTH, FEET	8041	8801	3383
WELLHEAD PRESSURE,PSIG	NOT GIVEN	2500	1275
OPEN FLOW, MCFD	2500	3000	220000
COMPONENT, MOLE PCT			
METHANE	81.3	83.5	86.1
ETHANE	6.9	8.1	0.8
PROPANE	2.9	3.2	0.1
N-BUTANE	0.8	0.8	TRACE
ISOBUTANE	0.8	0.5	0.0
N-PENTANE	0.3	0.2	TRACE
ISOPENTANE	0.3	0.3	TRACE
CYCLOPENTANE	0.2	0.1	0.1
HEXANES PLUS	0.4	0.3	0.1
NITROGEN	2.0	0.4	12.4
OXYGEN	TRACE	0.0	TRACE
ARGON	0.0	TRACE	TRACE
HYDROGEN	TRACE	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	4.0	2.5	0.3
HELIUM	TRACE	TRACE	0.02
HEATING VALUE*	1130	1158	898
SPECIFIC GRAVITY	0.714	0.691	0.617

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 466 SAMPLE 16206	INDEX 467 SAMPLE 16204	INDEX 468 SAMPLE 16962
STATE	WYOMING	WYOMING	WYOMING
COUNTY	CARBON	CARBON	CONVERSE
FIELD	STANDARD DRAW	WILD ROSE	BIG MUDDY
WELL NAME	STANDARD DRAW NO. 4-4	U.S.A. NO. 1-32	R. B. WHITESIDE NO. 82
LOCATION	SEC. 4, T18N, R93W	SEC. 32, T17N, R93W	T33N, R76W
OWNER	COASTAL OIL & GAS CORP.	COASTAL OIL & GAS CORP.	CONOCO, INC.
COMPLETED	11/03/80	11/24/80	01/09/79
SAMPLED	03/04/81	03/04/81	06/03/83
FORMATION	CRET-ALMOND	CRET-FRONTIER	CRET-WALL CREEK 2ND
GEOLOGIC PROVINCE CODE	535	535	515
DEPTH, FEET	8886	9250	3060
WELLHEAD PRESSURE,PSIG	900	2100	NOT GIVEN
OPEN FLOW, MCFD	4500	3925	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE	73.2	82.6	72.8
ETHANE	6.1	6.6	7.5
PROPANE	2.1	2.9	7.7
N-BUTANE	0.3	0.6	2.6
ISOBUTANE	0.3	0.8	1.9
N-PENTANE	TRACE	0.2	0.3
ISOPENTANE	0.1	0.5	2.6
CYCLOPENTANE	TRACE	0.3	1.0
HEXANES PLUS	0.1	0.6	1.2
NITROGEN	11.8	2.0	1.0
OXYGEN	2.9	0.4	TRACE
ARGON	0.1	0.0	0.0
HYDROGEN	0.0	TRACE	0.2
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	2.9	2.4	1.0
HELIUM	0.01	TRACE	0.01
HEATING VALUE*	935	1149	1447
SPECIFIC GRAVITY	0.712	0.704	0.853

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 469 SAMPLE 16963	INDEX 470 SAMPLE 16964	INDEX 471 SAMPLE 16965
STATE	WYOMING	WYOMING	WYOMING
COUNTY	CONVERSE	CONVERSE	CONVERSE
FIELD	BIG MUDDY	BIG MUDDY	BIG MUDDY
WELL NAME	R. B. WHITESIDE NO. 57	R. B. WHITESIDE	R. B. WHITESIDE NO. 89
LOCATION	T33N, R76W	T33N, R76W	T33N, R76W
OWNER	CONOCO, INC.	CONOCO, INC.	CONOCO, INC.
COMPLETED	--/--/29	10/--/78	08/--/78
SAMPLED	06/02/83	06/03/83	06/03/83
FORMATION	CRET-WALL CREEK 2ND	CRET-WALL CREEK 2ND	CRET-WALL CREEK 2ND
GEOLOGIC PROVINCE CODE	515	515	515
DEPTH, FEET	3075	3092	3073
WELLHEAD PRESSURE,PSIG	NOT GIVEN	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE	59.1	55.8	34.3
ETHANE	4.8	6.5	13.9
PROPANE	9.8	13.2	25.5
N-BUTANE	5.9	7.2	9.2
ISOBUTANE	3.5	4.3	6.2
N-PENTANE	1.4	1.3	0.9
ISOPENTANE	4.7	5.3	6.0
CYCLOPENTANE	1.1	0.8	0.8
HEXANES PLUS	1.8	1.4	1.2
NITROGEN	6.8	2.1	0.8
OXYGEN	TRACE	0.1	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.2	0.2	0.1
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.9	1.8	1.1
HELIUM	0.12	0.01	TRACE
HEATING VALUE*	1651	1796	2164
SPECIFIC GRAVITY	1.038	1.096	1.304

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 472 SAMPLE 17134	INDEX 473 SAMPLE 16395	INDEX 474 SAMPLE 16394
STATE	WYOMING	WYOMING	WYOMING
COUNTY	JOHNSON	LINCOLN	LINCOLN
FIELD	SAPPHIRE	CARTER CREEK	CARTER CREEK-WHITNEY CANYON
WELL NAME	SAPPHIRE UNIT NO. 1	FEDERAL 1-30M	CHEVRON FEDERAL 1-20M
LOCATION	SEC. 17, T51N, R76W	SEC. 30, T19N,R119W	SEC. 20, T17N, R119W
OWNER	DAVIS OIL CO.	CHEVRON U.S.A., INC.	CHEVRON U.S.A., INC.
COMPLETED	06/--/83	--/--/00	10/24/81
SAMPLED	11/09/83	12/10/81	10/10/81
FORMATION	CRET-MUDDY	MISS-MISSION CANYON	ORDO-BIG HORN
GEOLOGIC PROVINCE CODE	515	535	535
DEPTH, FEET	10374	14635	16262
WELLHEAD PRESSURE,PSIG	1000	3322	4400
OPEN FLOW, MCFD	470	2670	11266
COMPONENT, MOLE PCT			
METHANE	79.9	62.0	86.1
ETHANE	10.7	5.6	8.3
PROPANE	3.5	1.5	2.6
N-BUTANE	0.9	0.4	0.5
ISOBUTANE	0.6	0.5	0.5
N-PENTANE	0.3	0.1	0.1
ISOPENTANE	0.4	0.2	0.1
CYCLOPENTANE	0.1	0.1	TRACE
HEXANES PLUS	0.2	0.2	0.1
NITROGEN	0.3	0.7	1.1
OXYGEN	TRACE	0.0	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	0.1	TRACE
HYDROGEN SULFIDE**	0.0	21.3	0.0
CARBON DIOXIDE	3.1	7.3	0.5
HELIUM	0.01	0.02	0.01
HEATING VALUE*	1186	961	1136
SPECIFIC GRAVITY	0.717	0.832	0.652

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 475 SAMPLE 17712	INDEX 476 SAMPLE 17571	INDEX 477 SAMPLE 17872
STATE	WYOMING	WYOMING	WYOMING
COUNTY	LINCOLN	LINCOLN	LINCOLN
FIELD	LITTLE MONUMENT	ROAD HOLLOW UNIT	SHUTE CREEK
WELL NAME	WSA-B NO. 32-1	ROAD HOLLOW UNIT NO. 4,8,10	COW HOLLOW NO. 1
LOCATION	SEC. 32, T25N, R111W	SEC. 4, T19N, R119W	SEC. 10, T22N, R112W
OWNER	TEXACO PRODUCING, INC.	EXXON CO., U.S.A.	AMOCO PRODUCTION CO.
COMPLETED	10/10/84	11/11/81	04/20/85
SAMPLED	06/10/85	01/25/85	09/--/85
FORMATION	CRET-FRONTIER	ORDO-BIGHORN	CRET-FRONTIER 2ND
GEOLOGIC PROVINCE CODE	535	535	535
DEPTH, FEET	9286	15057	10698
WELLHEAD PRESSURE,PSIG	3939	3600	792
OPEN FLOW, MCFD	3120	31	1100
COMPONENT, MOLE PCT			
METHANE	84.8	82.8	82.6
ETHANE	3.1	9.8	10.5
PROPANE	0.6	3.4	3.1
N-BUTANE	0.2	0.8	0.6
ISOBUTANE	0.1	0.7	0.4
N-PENTANE	0.1	0.2	0.1
ISOPENTANE	0.1	0.3	0.3
CYCLOPENTANE	0.1	0.1	0.2
HEXANES PLUS	0.1	0.3	0.3
NITROGEN	10.4	0.5	1.1
OXYGEN	TRACE	0.0	0.0
ARGON	TRACE	0.0	TRACE
HYDROGEN	TRACE	0.0	TRACE
HYDROGEN SULFIDE**	0.0	0.4	0.0
CARBON DIOXIDE	0.5	0.7	0.7
HELIUM	TRACE	0.01	0.01
HEATING VALUE*	958	1196	1179
SPECIFIC GRAVITY	0.637	0.690	0.682

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 478 SAMPLE 17355	INDEX 479 SAMPLE 17377	INDEX 480 SAMPLE 17655
STATE	WYOMING	WYOMING	WYOMING
COUNTY	LINCOLN	LINCOLN	NATRONA
FIELD	WILDCAT	WILDCAT	GRIEVE
WELL NAME	BROAD CANYON NO. 1	BROAD CANYON NO. 1	GRIEVE UNIT NO. 48
LOCATION	SEC. 28, T32N, R116W	SEC. 28, T32N, R116W	SEC. 27, T32N, R85W
OWNER	ARCO OIL & GAS CO.	ARCO OIL & GAS CO.	FOREST OIL CORP.
COMPLETED	07/--/84	08/--/84	10/16/84
SAMPLED	07/--/84	08/--/84	04/25/85
FORMATION	MISS-MADISON	PERM-PHOSPHORIA	CRET-MUDDY
GEOLOGIC PROVINCE CODE	535	535	530
DEPTH, FEET	16549	14935	6792
WELLHEAD PRESSURE,PSIG	7030	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD	13000	NOT GIVEN	4788
COMPONENT, MOLE PCT			
METHANE	11.5	31.1	86.7
ETHANE	0.1	0.6	5.6
PROPANE	0.1	0.0	3.9
N-BUTANE	0.0	0.0	1.2
ISOBUTANE	0.0	0.0	0.6
N-PENTANE	0.0	0.0	0.2
ISOPENTANE	0.0	0.0	0.2
CYCLOPENTANE	0.0	0.0	TRACE
HEXANES PLUS	0.0	0.0	0.1
NITROGEN	4.8	13.6	0.8
OXYGEN	0.1	0.0	TRACE
ARGON	0.1	TRACE	0.0
HYDROGEN	0.1	0.1	0.0
HYDROGEN SULFIDE**	2.5	34.9	0.0
CARBON DIOXIDE	80.4	19.5	0.6
HELIUM	0.43	0.12	0.01
HEATING VALUE*	137	550	1163
SPECIFIC GRAVITY	1.375	1.024	0.667

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 481 SAMPLE 17930	INDEX 482 SAMPLE 17721	INDEX 483 SAMPLE 17352
STATE	WYOMING	WYOMING	WYOMING
COUNTY	NATRONA	PARK	SUBLETTE
FIELD	TEPEE FLATS	BADGER CREEK	FIGURE FOUR CANYON
WELL NAME	TEPEE FLATS NO. 18-1	FEDERAL 5277 NO. 2-24	FIGURE FOUR CANYON 2-12
LOCATION	SEC. 18, T37N, R86W	SEC. 24, T50N, R100W	SEC. 12, T27N, R112W
OWNER	MONCRIEF OIL CO.	ANSCHUTZ CORP.	BELCO DEVELOPMENT CORP.
COMPLETED	03/29/85	01/26/84	10/09/83
SAMPLED	12/09/85	06/19/85	07/12/84
FORMATION	CRET-LAKOTA	CRET-FRONTIER	CRET-BEAR RIVER
GEOLOGIC PROVINCE CODE	530	520	535
DEPTH, FEET	19386	4556	9393
WELLHEAD PRESSURE,PSIG	11652	NOT GIVEN	4350
OPEN FLOW, MCFD	5000	1250	2271
COMPONENT, MOLE PCT			
METHANE	95.8	85.7	93.7
ETHANE	0.3	8.3	3.9
PROPANE	TRACE	1.5	0.7
N-BUTANE	0.0	0.3	0.2
ISOBUTANE	0.0	0.6	TRACE
N-PENTANE	0.0	0.1	0.1
ISOPENTANE	0.0	0.4	TRACE
CYCLOPENTANE	0.0	0.2	TRACE
HEXANES PLUS	0.0	0.4	TRACE
NITROGEN	1.1	1.6	1.0
OXYGEN	0.1	0.2	0.1
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	0.0	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	2.7	0.8	0.2
HELIUM	0.01	0.01	0.01
HEATING VALUE*	976	1135	1048
SPECIFIC GRAVITY	0.587	0.663	0.592

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 484 SAMPLE 17365	INDEX 485 SAMPLE 17719	INDEX 486 SAMPLE 16646
STATE	WYOMING	WYOMING	WYOMING
COUNTY	SUBLETTE	SUBLETTE	SUBLETTE
FIELD	GREEN RIVER BEND	LA BARGE E	RILEY RIDGE
WELL NAME	GREEN RIVER BEND NO. 81-36	EAST LA BARGE NO. 40-32	RILEY RIDGE N FED. NO. 33-24
LOCATION	SEC. 36, T27N, R113W	SEC. 32, T27N, R112W	SEC. 33, T30N, R114W
OWNER	BELCO DEVELOPMENT CORP.	BELNORTH PETROLEUM CORP.	AMERICAN QUASAR PET. CO.
COMPLETED	09/25/83	11/16/84	--/--/00
SAMPLED	07/31/84	--/--/00	08/26/82
FORMATION	CRET-FRONTIER & MUDDY	CRET-MESAVERDE	MISS-MADISON
GEOLOGIC PROVINCE CODE	535	535	535
DEPTH, FEET	6845	2489	15893
WELLHEAD PRESSURE,PSIG	1890	1143	NOT GIVEN
OPEN FLOW, MCFD	3557	4358	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE	90.7	88.0	14.4
ETHANE	5.9	5.7	TRACE
PROPANE	0.5	2.9	0.0
N-BUTANE	0.6	0.6	0.0
ISOBUTANE	0.1	0.9	0.0
N-PENTANE	0.1	0.1	0.0
ISOPENTANE	0.4	0.2	0.0
CYCLOPENTANE	0.1	TRACE	0.0
HEXANES PLUS	0.2	0.1	0.0
NITROGEN	1.1	1.2	6.5
OXYGEN	0.1	0.1	0.1
ARGON	TRACE	TRACE	0.1
HYDROGEN	0.0	TRACE	TRACE
HYDROGEN SULFIDE**	0.0	0.0	2.2
CARBON DIOXIDE	0.1	0.2	76.2
HELIUM	0.01	0.02	0.50
HEATING VALUE*	1097	1137	160
SPECIFIC GRAVITY	0.621	0.650	1.337

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 487 SAMPLE 17780	INDEX 488 SAMPLE 17699	INDEX 489 SAMPLE 17727
STATE	WYOMING	WYOMING	WYOMING
COUNTY	SWEETWATER	SWEETWATER	SWEETWATER
FIELD	CHURCH BUTTES	DRIPPING ROCK	DRIPPING ROCK
WELL NAME	UNIT NO. 31	LIEBER FEDERAL NO. 32-1	CEDAR BREAKS NO. 6-1
LOCATION	SEC. 21, T16N, R112W	SEC. 32, T14N, R94W	SEC.6, T13N, R94W
OWNER	WEXPRO CO.	CELSIUS ENERGY CO.	CELSIUS ENERGY CO.
COMPLETED	08/13/84	12/10/84	06/25/84
SAMPLED	07/19/85	06/06/85	06/06/85
FORMATION	PENN-MORGAN	CRET-FOX HILLS	CRET-ALMOND
GEOLOGIC PROVINCE CODE	535	535	535
DEPTH, FEET	18086	10550	13010
WELLHEAD PRESSURE,PSIG	8065	5050	280
OPEN FLOW, MCFD	11160	550	1249
COMPONENT, MOLE PCT			
METHANE	48.5	79.4	94.5
ETHANE	5.8	10.1	0.9
PROPANE	1.2	4.2	0.1
N-BUTANE	0.5	1.0	0.0
ISOBUTANE	0.3	0.8	0.0
N-PENTANE	0.1	0.3	0.0
ISOPENTANE	0.1	0.3	0.0
CYCLOPENTANE	TRACE	0.2	0.0
HEXANES PLUS	0.1	0.3	0.0
NITROGEN	7.5	1.4	0.9
OXYGEN	TRACE	0.2	0.1
ARGON	0.1	TRACE	TRACE
HYDROGEN	TRACE	TRACE	TRACE
HYDROGEN SULFIDE**	6.2	0.0	0.0
CARBON DIOXIDE	29.3	1.6	3.4
HELIUM	0.23	TRACE	TRACE
HEATING VALUE*	707	1203	976
SPECIFIC GRAVITY	0.969	0.718	0.597

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 490 SAMPLE 16530	INDEX 491 SAMPLE 17060	INDEX 492 SAMPLE 16426
STATE	WYOMING	WYOMING	WYOMING
COUNTY	SWEETWATER	SWEETWATER	UINTA
FIELD	NOT GIVEN	RED DESERT	EAST PAINTER
WELL NAME	FED. NO. 12-1	GREAT DIVIDE NO. 24	J.R. BROADBENT NO. 1
LOCATION	SEC. 21, T24N, R103W	SEC. 35, T23N, R96W	SEC. 8, T15N, R119W
OWNER	WOODS PETROLEUM CORP.	HOME PETROLEUM CORP.	AMOCO PROD CO & CHEVRON USA
COMPLETED	02/--/82	04/05/82	01/12/81
SAMPLED	06/01/82	09/09/83	12/29/81
FORMATION	NOT GIVEN	CRET-LEWIS	JURA-NUGGET
GEOLOGIC PROVINCE CODE	535	535	535
DEPTH, FEET	NOT GIVEN	9634	11370
WELLHEAD PRESSURE,PSIG	4600	4100	2500
OPEN FLOW, MCFD	960	1206	2600
COMPONENT, MOLE PCT			
METHANE	95.4	67.6	81.2
ETHANE	2.6	11.5	11.6
PROPANE	0.3	7.3	4.0
N-BUTANE	TRACE	3.3	0.6
ISOBUTANE	TRACE	1.7	0.5
N-PENTANE	0.0	0.6	0.1
ISOPENTANE	TRACE	3.5	0.1
CYCLOPENTANE	TRACE	0.4	TRACE
HEXANES PLUS	TRACE	1.0	0.1
NITROGEN	0.6	2.0	1.8
OXYGEN	0.1	0.1	0.0
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.1	0.3	0.0
HYDROGEN SULFIDE**	0.0	0.0	0.0
CARBON DIOXIDE	0.7	0.8	0.0
HELIUM	TRACE	TRACE	0.02
HEATING VALUE*	1021	1491	1185
SPECIFIC GRAVITY	0.579	0.887	0.682

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 493 SAMPLE 17911	INDEX 494 SAMPLE 17389	INDEX 495 SAMPLE 17591
STATE	WYOMING	WYOMING	WYOMING
COUNTY	UINTA	UINTA	UINTA
FIELD	LUCKEY DITCH	WHITNEY CANYON-CARTER CREEK	WHITNEY CANYON-CARTER CREEK
WELL NAME	LUCKEY DITCH STATE NO. 1	FED. NO. 2-6E	FED. NO. 2-6E
LOCATION	SEC. 16, T12N, R114W	SEC. 6, T17N, R119W	SEC. 6, T17N, R119W
OWNER	SUN EXPLORATION & PRODUCTION	CHEVRON U.S.A., INC..	CHEVRON U.S.A., INC.
COMPLETED	05/25/85	10/--/83	--/--/83
SAMPLED	11/16/85	08/23/84	01/10/85
FORMATION	CRET-DAKOTA	MISS-MISSION CANYON	MISS-MISSION CANYON
GEOLOGIC PROVINCE CODE	535	535	535
DEPTH, FEET	15235	12840	12840
WELLHEAD PRESSURE,PSIG	4400	3200	3350
OPEN FLOW, MCFD	8785	23000	26000
COMPONENT, MOLE PCT			
METHANE	78.6	5.1	55.9
ETHANE	7.8	0.5	5.1
PROPANE	3.5	0.1	1.3
N-BUTANE	1.2	0.1	0.4
ISOBUTANE	0.5	0.0	0.3
N-PENTANE	0.4	0.1	0.2
ISOPENTANE	0.3	0.0	0.1
CYCLOPENTANE	0.1	TRACE	0.1
HEXANES PLUS	0.3	0.1	0.3
NITROGEN	5.0	0.0	0.1
OXYGEN	1.1	0.0	TRACE
ARGON	TRACE	TRACE	0.0
HYDROGEN	0.0	TRACE	TRACE
HYDROGEN SULFIDE**	0.0	0.7	12.9
CARBON DIOXIDE	1.0	93.3	23.3
HELIUM	0.02	0.01	0.02
HEATING VALUE*	1133	80	830
SPECIFIC GRAVITY	0.712	1.478	0.928

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX 1 SAMPLE 17574	INDEX 2 SAMPLE 17758	INDEX 3 SAMPLE 17762
STATE	CALIFORNIA	COLORADO	COLORADO
COUNTY	KINGS	MORGAN	WELD
FIELD	TULARE LAKE	DENVER JULESBURG BASIN	WESTERN WYOMING
PLANT NAME	FIELD SEPARATOR	FORT MORGAN STORAGE	CHEYENNE COMP. STA.
LOCATION	SEC. 17, T22S, R20E	16 IN. LINE	36 IN. WIC - TRAILBLAZER SYS
OWNER	SHELL CALIFORNIA PROD., INC.	COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.
SAMPLED	01/19/85	07/17/85	07/16/85
FORMATION	MIOC-TEMBLOR	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE	745	540	540
PRESSURE,PSIG	NOT GIVEN	650	770
FLOW,MCFD	500	7000	250000
COMPONENT, MOLE PCT			
METHANE	72.3	84.9	84.5
ETHANE	10.6	8.3	9.1
PROPANE	8.6	1.3	2.0
N-BUTANE	3.2	0.3	0.4
ISOBUTANE	1.8	0.1	0.3
N-PENTANE	0.7	0.1	0.1
ISOPENTANE	1.0	0.1	0.1
CYCLOPENTANE	0.2	0.1	0.1
HEXANES PLUS	0.6	0.1	0.1
NITROGEN	0.5	3.3	3.4
OXYGEN	0.1	0.0	0.0
ARGON	0.0	TRACE	TRACE
HYDROGEN	TRACE	TRACE	TRACE
HYDROGEN SULFIDE	0.0	0.0	0.0
CARBON DIOXIDE	0.3	1.5	TRACE
HELIUM	TRACE	0.04	0.01
HEATING VALUE*	1425	1073	1112
SPECIFIC GRAVITY	0.825	0.652	0.653

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX 4 SAMPLE 17756	INDEX 5 SAMPLE 17757	INDEX 6 SAMPLE 17755
STATE	COLORADO	NEBRASKA	NEBRASKA
COUNTY	WELD	CHEYENNE	DEUEL
FIELD	WYOMING FIELDS	WYOMING FIELDS	WYOMING & BIG SPGS. STORAGE
PLANT NAME	CHEYENNE COMP. STA.	HUNTSMAN COMP. STA.	BIG SPRINGS COMP. STA.
LOCATION	MAIN LINE, 22 IN. & 24 IN.	10 IN. LINE	12 IN. & 16 IN. INLET
OWNER	COLORADO INTERSTATE GAS CO.	KN ENERGY, INC.	KN ENERGY, INC.
SAMPLED	07/16/85	07/16/85	07/16/85
FORMATION	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE	540	540	540
PRESSURE,PSIG	600	538	930
FLOW,MCFD	200000	22000	135000
COMPONENT, MOLE PCT			
METHANE	88.4	89.6	81.3
ETHANE	6.2	6.9	6.6
PROPANE	0.9	0.7	0.7
N-BUTANE	0.2	0.0	0.1
ISOBUTANE	TRACE	0.0	0.0
N-PENTANE	0.1	0.0	0.1
ISOPENTANE	0.1	0.0	0.0
CYCLOPENTANE	TRACE	0.0	0.1
HEXANES PLUS	0.1	0.0	0.2
NITROGEN	2.0	1.2	7.7
OXYGEN	0.0	0.0	1.6
ARGON	TRACE	TRACE	0.1
HYDROGEN	TRACE	TRACE	TRACE
HYDROGEN SULFIDE	0.0	0.0	0.0
CARBON DIOXIDE	1.9	1.5	1.4
HELIUM	0.02	0.02	0.02
HEATING VALUE*	1050	1049	982
SPECIFIC GRAVITY	0.630	0.615	0.659

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX 7 SAMPLE 17733	INDEX 8 SAMPLE 17734	INDEX 9 SAMPLE 16591
STATE	NEW MEXICO	NEW MEXICO	PENNSYLVANIA
COUNTY	SAN JUAN	SAN JUAN	ARMSTRONG
FIELD	BEAUTIFUL MOUNTAIN	BEAUTIFUL MOUNTAIN	WESTERN PENNSYLVANIA
PLANT NAME	NAVAJO REFINED HELIUM	NAVAJO REFINED HELIUM	VALLEY COMPRESSOR STA.
LOCATION	GAS WELL NO. 2-5	GAS WELL NO. 2-5	12 IN.
OWNER	NAVAJO REFINED HELIUM CO. IN	NAVAJO REFINED HELIUM CO. IN	PEOPLES NATURAL GAS CO.
SAMPLED	07/01/85	07/01/85	07/22/82
FORMATION	MISS---	PERM-ORGAN ROCK	NOT GIVEN
GEOLOGIC PROVINCE CODE	580	580	160
PRESSURE,PSIG	680	680	98
FLOW,MCFD	NOT GIVEN	NOT GIVEN	15000
COMPONENT, MOLE PCT			
METHANE	2.0	3.6	94.9
ETHANE	0.2	0.4	3.2
PROPANE	0.2	0.2	0.6
N-BUTANE	0.2	0.2	0.2
ISOBUTANE	0.1	TRACE	0.1
N-PENTANE	0.2	0.1	0.1
ISOPENTANE	TRACE	TRACE	TRACE
CYCLOPENTANE	0.1	TRACE	TRACE
HEXANES PLUS	0.3	0.2	0.1
NITROGEN	89.4	90.2	0.5
OXYGEN	TRACE	0.0	0.0
ARGON	0.9	0.8	TRACE
HYDROGEN	TRACE	TRACE	0.3
HYDROGEN SULFIDE	0.0	0.0	0.0
CARBON DIOXIDE	0.7	TRACE	TRACE
HELIUM	5.60	4.12	0.07
HEATING VALUE*	67	70	1055
SPECIFIC GRAVITY	0.934	0.929	0.586

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX 10 SAMPLE 17760	INDEX 11 SAMPLE 17763	INDEX 12 SAMPLE 17771
STATE	UTAH	UTAH	WYOMING
COUNTY	CARBON	SUMMIT	ALBANY
FIELD	UINTA BASIN AREA	WY., CO. & UT. (OVERTHRUST)	ELK BASIN & TABLE ROCK
PLANT NAME	PRICE DEWPOINT PLANT	OALVILLE COMP. STA.	LARAMIE COMPRESSOR STA.
LOCATION	20 IN. DISC.	16 IN. DISC. TO OGDEN	22 & 24 IN. MAIN LINE
OWNER	MOUNTAIN FUEL RESOURCES, INC	MOUNTAIN FUEL RESOURCES, INC	COLORADO INTERSTATE GAS CO.
SAMPLED	07/10/85	07/10/85	07/15/85
FORMATION	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE	575	570	535
PRESSURE,PSIG	600	400	600
FLOW,MCFD	70000	49700	205000
COMPONENT, MOLE PCT			
METHANE	89.2	85.0	88.6
ETHANE	6.6	9.3	6.0
PROPANE	1.8	2.5	0.8
N-BUTANE	0.3	0.2	0.2
ISOBUTANE	0.3	0.2	0.1
N-PENTANE	0.2	TRACE	0.1
ISOPENTANE	TRACE	TRACE	TRACE
CYCLOPENTANE	0.3	TRACE	TRACE
HEXANES PLUS	0.6	0.1	0.1
NITROGEN	0.6	2.4	2.3
OXYGEN	0.0	0.0	0.0
ARGON	0.0	TRACE	TRACE
HYDROGEN	TRACE	0.1	0.1
HYDROGEN SULFIDE	0.0	0.0	0.0
CARBON DIOXIDE	0.0	0.0	1.8
HELIUM	0.01	0.02	0.03
HEATING VALUE*	1139	1111	1046
SPECIFIC GRAVITY	0.640	0.642	0.628

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX 13 SAMPLE 17769	INDEX 14 SAMPLE 17768	INDEX 15 SAMPLE 17770
STATE	WYOMING	WYOMING	WYOMING
COUNTY	ALBANY	CARBON	CARBON
FIELD	POWDER RIVER BASIN	ELK BASIN & SHOSHONE AREA	TABLE ROCK & WAMSUTTER
PLANT NAME	LARAMIE COMPRESSOR STA.	RAWLINS COMPRESSOR STA.	RAWLINS COMPRESSOR STA.
LOCATION	16 IN. NORTH LINE	WIND RIVER LATERAL, 12 & 16	WYOMING MAIN LINE, 22 & 24
OWNER	COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.
SAMPLED	07/15/85	07/15/85	07/15/85
FORMATION	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE	535	535	535
PRESSURE,PSIG	780	500	600
FLOW,MCFD	20000	100000	127000
COMPONENT, MOLE PCT			
METHANE	78.9	92.3	87.6
ETHANE	13.2	4.7	6.7
PROPANE	3.3	0.8	0.9
N-BUTANE	0.6	0.2	0.2
ISOBUTANE	0.2	0.1	0.1
N-PENTANE	0.1	0.1	TRACE
ISOPENTANE	0.1	TRACE	TRACE
CYCLOPENTANE	TRACE	0.1	TRACE
HEXANES PLUS	0.1	0.3	0.1
NITROGEN	1.1	1.1	2.5
OXYGEN	0.0	0.0	0.0
ARGON	TRACE	TRACE	TRACE
HYDROGEN	TRACE	0.1	TRACE
HYDROGEN SULFIDE	0.0	0.0	0.0
CARBON DIOXIDE	2.3	0.1	1.8
HELIUM	0.01	0.01	0.03
HEATING VALUE*	1162	1074	1046
SPECIFIC GRAVITY	0.698	0.606	0.631

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX 16 SAMPLE 17764	INDEX 17 SAMPLE 17765	INDEX 18 SAMPLE 17766
STATE	WYOMING	WYOMING	WYOMING
COUNTY	LINCOLN	LINCOLN	NATRONA
FIELD	BIG PINEY & LA BARGE	TOTAL SOUTH SYSTEM	WIND RIVER BASIN
PLANT NAME	OPAL COMP. STA.	KEMMERER COMP. STA.	CASPER EXTRACTION PLANT
LOCATION	30 IN. LINE	22 IN. DISC.	12 IN. PLANT INLET
OWNER	NORTHWEST PIPELINE CORP.	NORTHWEST PIPELINE CORP.	KN ENERGY, INC.
SAMPLED	07/11/85	07/11/85	07/15/85
FORMATION	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE	310	535	530
PRESSURE,PSIG	589	636	805
FLOW,MCFD	100000	62000	36300
COMPONENT, MOLE PCT			
METHANE	89.1	85.5	90.7
ETHANE	5.6	8.5	5.3
PROPANE	2.2	0.8	1.2
N-BUTANE	0.6	0.0	0.3
ISOBUTANE	0.4	0.0	0.2
N-PENTANE	0.1	0.0	0.1
ISOPENTANE	0.3	0.0	0.1
CYCLOPENTANE	0.2	0.0	0.1
HEXANES PLUS	0.3	0.0	0.2
NITROGEN	0.8	4.9	0.6
OXYGEN	0.0	0.0	0.0
ARGON	0.0	TRACE	0.0
HYDROGEN	0.1	TRACE	0.1
HYDROGEN SULFIDE	0.0	0.0	0.0
CARBON DIOXIDE	0.3	0.3	1.2
HELIUM	0.01	0.02	0.01
HEATING VALUE*	1134	1039	1085
SPECIFIC GRAVITY	0.644	0.628	0.625

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX 19 SAMPLE 17767	INDEX 20 SAMPLE 17759	INDEX 21 SAMPLE 17761
STATE	WYOMING	WYOMING	WYOMING
COUNTY	SWEETWATER	UINTA	UINTA
FIELD	WAMSUTTER	CARTER CREEK	WHITNEY CANYON-CARTER CREEK
PLANT NAME	RINER COMPRESSOR STA.	WHITNEY CANYON METER SYSTEM	CANYON CREEK
LOCATION	20 IN. LINE	CARTER CREEK 36 IN. LINE	24 IN. LINE
OWNER	NORTHWEST CENTRAL PIPELINE C	MOUNTAIN FUEL RESOURCES, INC	NATURAL GAS PIPELINE CO. OF
SAMPLED	07/15/85	07/11/85	07/11/85
FORMATION	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE	535	535	535
PRESSURE,PSIG	710	813	850
FLOW,MCFD	88000	90000	150000
COMPONENT, MOLE PCT			
METHANE	84.8	86.0	89.3
ETHANE	8.5	8.2	8.3
PROPANE	3.2	2.7	1.3
N-BUTANE	0.6	0.7	0.0
ISOBUTANE	0.5	0.6	0.0
N-PENTANE	0.1	0.2	0.0
ISOPENTANE	0.1	0.3	0.0
CYCLOPENTANE	TRACE	0.1	0.0
HEXANES PLUS	TRACE	0.2	0.0
NITROGEN	0.4	1.0	1.0
OXYGEN	TRACE	0.0	0.0
ARGON	TRACE	TRACE	TRACE
HYDROGEN	TRACE	TRACE	TRACE
HYDROGEN SULFIDE	0.0	0.0	0.0
CARBON DIOXIDE	1.5	0.0	TRACE
HELIUM	0.01	0.01	0.01
HEATING VALUE*	1140	1167	1087
SPECIFIC GRAVITY	0.664	0.662	0.612

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

TABLE 3. - SAMPLES FROM GAS AND OIL WELLS IN FOREIGN COUNTRIES

	INDEX 1 SAMPLE 17575
COUNTRY	THAILAND
STATE OR PROVINCE	KHORAT PLATEAU
FIELD	NAM PHONG
WELL NAME	NAM PHONG NO. 2
LOCATION	17M N OF KHON KAEN NE THAI
OWNER	ESSO EXPLORATION
COMPLETED	--/--/82
SAMPLED	12/21/84
FORMATION	PERM-LIMESTONE
DEPTH, FEET	10220
WELLHEAD PRESSURE,PSIG	800
OPEN FLOW, MCFD	17000
COMPONENT, MOLE PCT	
METHANE	95.6
ETHANE	0.6
PROPANE	0.1
N-BUTANE	TRACE
ISOBUTANE	0.0
N-PENTANE	0.1
ISOPENTANE	0.0
CYCLOPENTANE	TRACE
HEXANES PLUS	0.1
NITROGEN	1.9
OXYGEN	0.0
ARGON	TRACE
HYDROGEN	TRACE
HYDROGEN SULFIDE**	0.0
CARBON DIOXIDE	1.6
HELIUM	0.04
HEATING VALUE*	991
SPECIFIC GRAVITY	0.586

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

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